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OF

AGRICULTURE, MANUFACTURES, MECHANIC ARTS,
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AND

GENERAL LITERATURE.

Agriculture and the Mechanic Arts are the basis of Civilization.

M. TARVER & T. F. RISK,
EDITORS AND PROPRIETORS.

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THE

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VOL. V. November, 1850. NO. II.

ART. I. — SOUTHERN AND WESTERN COMMERCE.

In an article published in the first volume of the Western Journal, we sketched the outlines of a system of commerce for the Valley of the Mississippi; and, endeavored to show that in obedience to natural laws, this system must in time become independent of the present one, which has its centre on the Atlantic coast, in the eastern States.

When that article was written, nothing had transpired to suggest any important change in the long established course of commerce from east to west. The eastern States were rejoicing in a monopoly of the foreign, southern and western trade; and also, in the rapid growth of their numerous and varied manufactures; while the only thing which the people of the west seemed to consider necessary to ensure their permanent prosperity, was a cheaper and more speedy communication with eastern and foreign markets.

The idea of establishing manufactories in the south and west, was generally regarded as visionary: and indeed many objected to the policy of encouraging this branch of industry, on the grounds that it was calculated to divert labor from agricultural pursuits and demoralize the people. While nearly every one seemed to conclude that it was impossible for manufactures in the south and west to compete successfully with the capital and skill of the east.

Three years have not yet elapsed since our article on "the natural laws of commerce" was written; and within this short period many changes have occurred calculated to awaken the attention of observing individuals, in all parts of the country, to the new aspects presented by the developments continually

going on in every department of industry. Manufactures in the east, which seemed a few years ago to be established on a firm and permanent foundation, are beginning to exhibit signs of decay — this is more especially the case in regard to the manufacture of cotton — for we learn from reliable data* that in the year 1847–8, the eastern factories consumed 456,772 bales of raw cotton, and that in the year 1849, they only consumed 380,269, a decline of 76,269 bales in two years; while the southern and western factories increased from 75,000 to 107,500 bales, being a gain of 32,500 bales in the same period. And still the number of factories are rapidly increasing in the latter regions. Such facts as these are too prominent and imposing to be overlooked or disregarded by intelligent minds, and afford strong evidence that the location of cotton factories in the eastern States, is not in accordance with the natural laws of commerce; and, also, that notwithstanding they may yet increase for a time, still they are destined, ere long, to suffer a decided decline.

The genius of the age is directed to the discovery and development of natural resources; and wheresoever these can be made most available for the production of the necessaries and comforts of human subsistence, thither commerce and capital will resort, and there abide.

But it may be asked where will the south find a market for her fabrics? Let her supply the home demand first, and then look to the mighty west, where the increase of consumption will keep pace with the increase of production until she reaches the extent of her producing capacity. Nor will there be any necessity for sending her products to New York and Boston, for distribution; for she will find merchants to distribute them in her own great cities, or, the producer may ship them direct to the cities of the west, where they will be in the midst of the consumers.

But the production of cotton fabrics in the south, need not be limited by the home and western demand. Charleston, Mobile and New Orleans, are as near to South America and China, as are New York and Boston; and, being nearer to the trade of the west, will be in a condition to export their surplus manufactures on as good terms as their northern competitors.

The railroads of the south constitute another capital feature in connection with this subject. Though commenced, perhaps, without reference to the great results which are likely to flow from it, the construction of the Charleston and Hamburg railroad, may be regarded as the first practical movement towards the establishment of a distinct system of commerce, west of

* DeBow's Review, Vol. 9, page 475.

the Alleghany mountains. When this work reaches the Ohio river, as it certainly will in a few years more, the cities of Charleston and Savannah will be in complete connection with the Mississippi Valley; and we cannot suppose their citizens to be so stupid and wanting in enterprise, as to fail in establishing lines of steamers to the principal mercantile ports of Europe.

Again, the recent act of Congress granting land in aid of the railway from Mobile to Chicago and Galena, places the construction of this work beyond a reasonable doubt, laying the foundation of a system of railroads east of the Mississippi river, which would be sufficient of itself, in time, to revolutionize the commerce of the west.

The next great project connected with western commerce is that of opening a commercial thoroughfare across the Isthmus of Tehuantepec. This will make New Orleans the great entrepot of the Pacific trade, destined for the Valley of the Mississippi, and bring it to St. Louis in about the same time, and at little more cost than it can be carried to New York.—The citizens of New Orleans have been canvassing this project for some time, and we trust that sufficient enterprise will be found among them to carry it forward. But this is a work the burthen of which should not be left to rest on the people of New Orleans alone: the entire Valley of the Mississippi is deeply interested in its success, and, if necessary, every State in the west and south should aid in its construction.

Hitherto, the eastern States have monopolized the profits of southern and western labor: and well are they entitled to enjoy the rewards of their industry and enterprise. It has been in the power of the south, all the while, to change her condition, and therefore, should not blame the east for her own supineness and want of foresight. She has opposed the strength of human muscles against iron, steam, and the combinations of machinery, until she is convinced that the contest is hopeless. And now, awakened to a sense of the disadvantages under which she has labored, and stimulated by what she deems an unwarrantable interference with her institutions on the part of the north, she has resolved to develop her own great resources, by bringing the power of steam and machinery to aid her operatives. Actuated by such motives, and assisted by such powerful coadjutors, she may look with confidence to a most brilliant future, defying the competition of the world in the manufacture of her own great staple.

Every part of the Valley of the Mississippi, and more especially that west of the river, is deeply interested in the changes now going on, and the improvements being made in the southern States; for in that direction they must look, not only for cotton in all its varied forms, but for sugar, molasses, cof-

fee, and other tropical productions: also, for tea and other products of China and all countries bordering on the Pacific ocean; for through the south these must enter the west, until a railroad shall have been constructed across the Rocky Mountains. And in this direction, also, must they look for consumers of their surplus products, whether of agriculture, mines, or manufactures. The south is the natural market for wheat, the great staple of the north, and from this time forward the producers of this commodity, even on the shores of Lake Michigan, will find it to be their interest to look south rather than to the east for consumers. Seasons of scarcity in the east, or, favorable crops in the south may, and doubtless will, occasionally make the east the better market—but the southern demand is destined to increase until it shall become the leading market for this and other northern products.

It is not to be inferred from what we have said of the south, that our connections with the east are to cease entirely—far otherwise; nor is such an event to be desired. The east is a region of great resources, and it is to our interest that it should maintain, if not its present relative importance in a commercial point of view, yet, a state of prosperity that will make it a respectable rival of the south.

The people of the east are beginning to comprehend and appreciate the changes that are occurring in the south and west; and it is unreasonable to suppose that they should desire to accelerate them; and hence it is to be expected that in the national councils they will endeavor to maintain their present advantages and relative importance, by withholding their assent to measures calculated to promote an interest adverse to their own. We have endeavored to show that the interests of the south and west are one and inseparable, and claim the united wisdom and action of the people of both regions in their behalf. It is our duty, therefore, to interchange views and opinions, and act in concert on all subjects relating to our common welfare. In times past, the south and west have not acted in unison on subjects alike interesting to both; but we trust that in future, a better understanding will exist between them.

Among the great subjects of national legislation which are likely to claim the attention of Congress at an early day, the most important, in our estimation, is that relating to the disposition of the public domain: on this subject the interest of the entire region from the great lakes to the Gulf of Mexico is evidently the same. This is a measure about which a variety of opinions will naturally prevail, even in the same district of country, and hence the importance of discussing it throughout the Union. If the people of the south are wise, in respect to their own interest, they will unite with the west on some plan calculated not only to extinguish the title of the general gov-

ernment within a limited period, but to promote the improvement of the country also.

Before dismissing this subject, we feel constrained to make a few remarks relating to the indifference and supineness evinced by the conductors of the public press throughout the west, in respect to measures involving the interest and prosperity of the country. It is in their power, and we hold it to be their duty, to bring the public mind to bear upon all subjects relating to the general welfare of the community, and give vitality and action to public sentiment, by furnishing their readers with well authenticated facts and sound arguments. But, unfortunately, much the larger part of the editorial corps of this country are bound by party obligations; and having no authority to lead, or to promulgate their own individual opinions, they dare not transgress their party limits. It is not their province to discuss a new measure, no matter how important to the country, until it shall have been adopted by one or the other of the leading parties. And hence, when a measure is suggested by one not recognized as a political leader, it receives but little attention from any quarter. The rank and file of the corps dare not approve nor condemn until it has been adopted as a party measure, lest they should be found on the wrong side of the question. It is owing to this cause, chiefly, that one who labors for the advancement of any great measure, not yet recognized and adopted by a party, receives so little encouragement from the public press.

We admit that political parties must exist in all free governments, and that the principles and policy of each should be represented by their respective journals. This is a principle in social economy which challenges our admiration; for it was evidently designed to stimulate man to investigate the great principles involved in human governments, and apply them to the practical advancement of civilization. So long as this lofty object is kept in view, the partizan should be regarded as a patriot and philanthropist, but, when he searches for such facts only as are calculated to sustain his party, and labors to invalidate those which operate against it, or shrinks from a fair investigation of facts and principles, lest the conclusions should be against him, he fails in the performance of his social duties, and brings reproach on the party to which he belongs.

We deem it necessary that the press should devote much of its labors to practical subjects; and the ground of our objection is, that questions of State policy are too much neglected. In our own State there are many subjects of unusual interest that claim the action of the legislature which is about to assemble. Among these may be enumerated a system of common schools; internal improvements; a geological survey; draining the swamp lands; the license laws, and laws regula-

ting interest. These are all measures intimately connected with the prosperity of the State, and yet, with a few exceptions, they have scarcely received a passing notice from any quarter.

We cannot suppose that the conductors of the press in Missouri are totally indifferent in regard to all these measures, and, unless they have been restrained by modesty, we are unable to account for their silence. And, that they have not been prompted by a laudable ambition to connect their names with some of these measures, is proof that they possess no ordinary powers of self-control.

From the Merchant's magazine.

ART. II—THE PRECIOUS METALS, COINS, AND BANK NOTES.

PART II.

On the origin and progress of Banking, and the estimated amount of paper money in circulation in the different countries in Europe, and in America in 1810 and 1830—on the amount of banking capital, coin in the banks, circulation of bank notes and coin in the United States at different periods, from 1810 to k849—also the exports and imports of coin, and the influence of foreign commerce on banking as well as on the specie in the country—on the depreciation of paper money—the losses of the people—evils resulting from it, and remedies suggested.

The first issue of paper money in Russia consisted of 40,000,000 roubles of assignats in 1759; the second consisted of 90,000,000 roubles in 1787. The silver rouble is equal to about seventy-five cents.

NO. I.

The amount of assignats in circulation in Russia, and the per cent. of depreciation at different periods, is stated by Storch as follows:—

Years.	Circulation.	per cent. discount.	Years.	Circulation.	per cent. discount
1790	111 millions roubles.	13	1805	292 millions roubles.	23
1795	150 "	31 1 2	1810	577 "	66 2-3
1800	212 "	35	1814	577 "	75

Mr. Jacob states that the paper money of Austria had increased prior to 1810, to 1,060,000,000 of florins, and had at one time so depreciated, that a silver florin would purchase ten or twelve paper florins, and that they were worth in 1810 only about one-fifth part of their nominal value. Calling their nominal value about two shillings sterling, and their real exchangeable value in 1810 one-fifth part as much, he estimated their total exchangeable value in 1810 at 21,000,000 pounds sterling.

About the year 1825 they were redeemed at two-fifths their nominal value, and specie payments resumed, and he estimated the amount of paper in circulation in 1830 at 100,000,000 florins, equal to £10,000,000 sterling.

He says the notes of the Bank of England in circulation in 1810 amounted to about £24,000,000 sterling, and estimated the notes of the private and joint stock banks, and the other banks of Great Britain and Ireland at the same amount—that is, at £48,000,000 in all. The tables in Brande's Encyclopædia of Science and Art, title bank, show that the circulating notes of the Bank of England in 1810 amounted to £21,019,600, and the coin and bullion in the bank £3,501,410; excess of circulation over coin and bullion, £17,518,190 and that in 1830 the circulation was £20,050,730, the coin and bullion £9,171,000, and the excess of notes in circulation but £11,556,730.

The country bank notes of England and Wales in circulation in 1810 are estimated in the Commercial Dictionary at £23,893,868; in 1833 they were reduced to £10,152,104. The notes of the Bank of Ireland in circulation in 1810 are stated at $3,170,064, and in 1832 at £3,975,322.

After the suspension of specie payments by the Bank of England in 1797, the excessive issue of bank notes occasioned their decline in value, and their depreciation in 1810 was nearly 13 per cent., and in 1814 over 25 per cent. The basis of the private and joint stock banks relied upon to redeem their notes was not specie nor bullion, but notes of the Bank of England; so that nearly the whole amount of their circulation was an addition of so much to the money or circulating medium of the country.

As the Bank of Russia, and also that of Austria, were both in a state of suspension in 1810, and the former also in 1830, they probably had very little specie or bullion to redeem with, and I shall estimate the same at but 10 per cent. Mr. Jacob remarks that in the smaller States of Germany, in Italy, except that part of it which is under the dominion of Austria, and in Spain and Switzerland, the currency has been invariably metallic; and in Denmark, Norway, and Sweden, a paper currency existed in 1810, and still circulated; but the whole amount, as well as the variations in those countries, has been so small that they affect, in a very trifling degree, the view here taken.

There was no bank in the United States until the Bank of North America was established in Philadelphia in 1770. The first banking association formed in the State of New York was a joint stock company organized in the year 1714, under the articles of association, under which it did business as a bank

nearly seven years, when it was incorporated in March, 1791, by the name of the Bank of New York. In 1792 the Bank of Albany was chartered, and in 1793 the Bank of Columbia. No other banks were chartered by the State of New York until the year 1800, when the Manhattan Company was incorporated. The first United States Bank was established in 1791; after the year 1800 banks began to increase in all parts of the U. States; and we have pretty accurate information of the amount of banking capital and of bank notes in circulation at different periods, from December, 1810, to the present time.

There is much less positive evidence of the amount of paper money in circulation in Europe and America in the year 1800, than in the year 1810, and since that time. The circulation of the Bank of England in August, 1800, was less than £15,000,000 sterling, but was nearly £24,500,000 in August, 1810. Though the United States was flooded with what was called continental money during our revolutionary war, and some of the New England colonies issued great quantities of paper money before the war, yet from the close of the war until after the year 1800, we had comparatively little paper money in our country. Paper money was increased immensely in many countries of Europe between the years 1800 and 1810, and there was probably nearly twice as much in circulation at the latter, as at the former period.

NO. II.

Estimates in millions of pounds sterling, taken mostly from Jacob's inquiry of the exchangeable value of the paper circulation of Europe and America in 1810 and 1830, the depreciation from which the nominal amount may be calculated, the amount of specie and bullion in the vaults of the banks, and the increase of the circulating medium by means of bank notes:—

		Depreciation, per cent.	Exchangeable value of bank notes in circulation.	Bullion and specie in the banks.	Excess of bank notes over specie and bullion.
Bank of England	1810	14	18	3.5	14.4
"	1830	par	20	9 17	10.9
Private and j'int st'ck banks in	1810	14	20	1.5	18.5
do.	1833	par	10	2 15	8
Banks of Ireland	1810	14	2 7	.5	2.2
"	1830	par	5	2	3
Banks of Scotland	1810	14	3	6	2.4
"	1830	par	3.5	1.4	2.1
Bank of France	1810	par	2	.8	1.2
"	1830	par	9	3.5	5.5
Bank of Russia	1810	72	23	2 3	20.7
"	1830	75	25.2	2.5	22 6
Bank of Austria	1810	80	21	2	19
"	1830	par	10	3.5	6 5
Holland in	1810	....	..	....	....
"	1830	par	1	.4	.5
Portugal	1810	30	1 4	.2	1 2
"	1830	....	2	.5	1.5
Prussia	1810	....	..	....	....
"	1830	par	2	7	1.3
United States	1810	par	5.8	3.2	2.6
"	1829	par	12 8	4.6	8.2
Total,	1810		£97	£14.6	£82.4
"	1830		100.5	30.3	70.2
"	1800			estimated at £46	

NO. III.

STATEMENT OF THE CIRCULATION OF BANK NOTES IN THE UNITED KINGDOM OF GREAT BRITAIN AND IRELAND AT DIFFERENT PERIODS, STATED IN MILLIONS OF POUNDS STERLING.

	December, 1842.	December, 1845.	December, 1848.	December, 1849.
Bank of England	£19 5 millions.	£20.2 millions.	£16.9 millions.	£17.9 mill's
Private banks, Eng.	5.0 "	4.5 "	3.5 "	3.5 "
Joint-stock banks	3.0 "	3.1 "	2.5 "	2.6 "
Banks in Scotland	3.0 "	3.3 "	3.3 "	3.2 "
Banks in Ireland	5.2 "	7.4 "	4.8 "	4.7 "
Tot. United Kingdom	£35.7	£38.5	£31.0	£31.9

Mr. McCullock estimates the amount of coin in circulation in the United Kingdom of Great Britain and Ireland in 1833 at £30,000,000 sterling; but when we reflect that they have a large bank note circulation, and that nearly all the merchants keep their deposits in, and do their business through banks, I doubt if the average circulation of coin during the last twenty years has exceeded £20,000,000, and have estimated it at that sum. The notes of the Bank of England constitute the principal means of all the other banks and bankers of the kingdom, with which to redeem their notes; and hence they are used as a substitute for coin to the amount of perhaps £6,000,000, which should not be treated as any portion of the circulation

of the country. This amount should therefore be deducted from the gross circulation of England, and the deduction is made in the following table. The average circulation of bank notes in the United Kingdom from 1833 to 1840, was about the same as from 1841 to 1849 :—

NO IV.

STATEMENT OF THE AVERAGE CIRCULATION OF COIN AND BANK NOTES AMONG THE PEOPLE, FROM 1841 TO 1849, AND THE AMOUNT TO EACH PERSON, AFTER DEDUCTING £6,000,000 STERLING, BANK OF ENGLAND NOTES, SUPPOSED TO BE HELD BY OTHER BANKS.

	Bank notes.	Coin.	Total.	Each person
England and Wales	£21 millions.	£14 millions.	£35 millions.	£10 1-4
Scotland	3 1-8 "	2 1-4 "	5 3-8 "	9 1-2
Ireland	5 1-2 "	3 3-4 "	9 1-4 "	5

The circulation of the Bank of France ordinarily fluctuates from 210 to £240,000,000 francs :—

Its circulation in July, 1830, was about	$43,200,000
In October, 1839, it was	39 937.000
" 1845, it was	48,589,000

It is most probable that the amount of paper money in Europe and America was very nearly the same in 1840, and but little more in 1845 than it was in 1830.

NO. I.

ESTIMATE OF MR. GALLATIN OF THE CAPITAL, NOTES IN CIRCULATION, AND SPECIE IN THE BANKS OF THE U. STATES AT THE END OF THE YEAR 1829—

	Capital.	Notes.	Specie.
281 banks, ascertained	$95 millions.	$39,2 millions.	$12 millions.
48 banks, estimated	15.2 "	9.1 "	2,9 "
United States Bank	34 "	13.0 "	7.2 "
Total	$145.2	$61.4	$22.1

It is obvious that if the capital of the forty-eight banks is properly estimated, the notes in circulation are estimated too high, by more than $2,000,000, and the specie in them too high by about $1,000,000, to correspond with the 281 banks, whose condition was ascertained. I shall, therefore, reduce the estimate, to make all the parts correspond, and shall call the circulation but $59,000,000, and the specie 21,000,000.

Mr. Gallatin estimated the amount of specie in the banks of the United States at the end of each year as follows :—1810 at $15,400,000; of 1814 at $17,000,000; of 1815 at $19,000,000; and of 1819 at $19,800,000.

The commercial records of the exports and imports of the precious metals, show that the amount in the country, from 1824

to 1828, must have been about $9,000,000 less than it was in 1820: and about $5,000,000 less in January, 1830, than it was in 1820. We cannot reasonably assume that the amount of coin in circulation in January, 1830, was less than $4,000,000, which, taking the exports and imports of specie into consideration, and Mr. Gallatin's estimate of the amount in the banks, would make the amount in circulation in 1820 over $10,000,000 and may be illustrated as follows, (the amount brought in by immigrants, not entered at the custom house, being estimated at from $10,000,000 to $20,000,000 each, on an average:—)

Estimated amount of coin and bullion in the United States, October 1, 1820,		$30	millions.
Imported in four years to September 30, 1825		24 9	"
Estimated amount brought in by immigrants		2	"
Total of imports and supply		$56.9	"
Exported during the same four years	$34.67 millions.		
Estimated amount used in the arts and made into plate, utensils, jewelry, and other ornaments, over and above old metal used and the produce of our own mines	1.23 "		
Total export and consumption		35.9	"
Leaving in the United States but		$21	"
October 1st, 1824, when the tariff of 1824 took effect:—			
Imported in four years, to September 30th, 1828		$28.67	"
Estimated amount brought in by immigrants		2	"
Total import and supply		$51.67	"
Exported during the same four years	$29.4 millions.		
Estimated amount used in the arts	1.27 "		
Total exports and consumption		30 67	"
Leaving in the United States only		$21	"
October 1st, 1828, when the tariff of 1828 went into operation:—			
Imported in six years, to September 30th, 1834		$53.75	"
Amount brought in by immigrants, estimated at		4	"
Total imports and supply		$78.75	"
Exported during the same six years	$26.46 millions.		
Used in the arts	2 29 "		
		28.75	"
Leaving in the United States,		$50	"
October 1st, 1834, soon after the free trade compromise.			
Act of March, 1833, made the first reduction of duties on foreign manufactures:			
Imported in three years, to September 30th, 837		$37	"
Estimated amount brought in by immigrants		2	"
Total imports and supply		$39	"
Exported during the same three years	$16.73 millions.		
Amount used in the arts, over and above product of our mines during this extravagant period of speculation	9.72 "		
		26	"
Leaving in the United States		$13	"
October 1st, 1837, when nearly all the banks in the nation were in a state of suspicion.			

As the imaginary wealth of the people of the United States was greatly increased during the speculative period from 1834 to 1837, by the multiplication and expansion of the banks, the increase of paper money, and the increase of prices, which was the necessary consequence; the extravagance of the people, and the increase of gold and silver made into plate, watches, chains, and other ornaments and utensils, was also immensely increased.

The value of the products of the precious metals manufactured in the United States in 1839, according to the returns of the census, amounted to $4,734,960, which must have consumed an amount of gold and silver exceeding $3,000,000.

The products of our gold mines in 1839 amounted to only $529,605; and the amount of silver was so small that it was not returned separately from other metals. The amount used in the arts for ten years, from 1837 to 1847, over and above the products of our mines, and the old gold and silver worked over, has probably amounted to over $2,000,000 per annum.

Estimated amount of specie and bullion in the United States, October 1, 1837, brought forward		$63 millions.
Imported in one year, to September 30, 1838		17 75 "
Amount brought in by immigrants, estimated at		.50 "
		$81.25 "
Exported during the year	$3.5 millions.	
Used in the arts	1.75 "	
		5.25 "
Leaving in the United States, October 1, 1838		$76 "
Imported in four years, to September 30, 1842		23.55 "
Amount brought in by immigrants, estimated at		2.45 "
		$102 "
Exported during the same four years	$32.3 millions.	
Used in the arts, estimated at	7.7 "	
		40 "
Leaving in the United States		$62 "
Coin and bullion, October 1, 1838, when the tariff of 1842 went into operation.		
Specie imported in three and three-quarters years to June 30, 1846, under the tariff of 1842		$36 "
Estimated amount brought in by immigrants		5 "
		$103 "
Specie exported during the same period	$19.5 millions.	
Used in the arts and loss by friction, &c., estimated at	8.5 "	
		28 "
Leaving in the United States		75 "
Specie imported during the year ending June 30, 1847, in consequence of the short crops in Europe and the great demand for our flour and grain		$24.1 "
Amount brought in by immigrants, estimated at		1.4 "
		$100.5 "
Specie exported during the same year	$2.5 millions.	
Specie expended abroad by the navy, and by the army in Mexico, estimated at	4 "	
Used in the arts and lost by friction, &c.	3 "	
		9.5 "
Leaving in the United States, June 30, 1847		$91 "
Of coin and bullion of over $50,000,000 on the 1st of December, 1846, when the free-trade tariff of 1846, took effect.		
Specie imported in two years, to June 30, 1849		$13 millions.
Amount brought from California, about		2 "
Estimated amount brought in by immigrants		4 "
		$110 "
Specie exported during the same period	$21.25 millions.	
Used in the arts and loss by friction	5 75 "	
Expended abroad by the army and navy	3.00 "	
		30 "
Leaving in the United States, June 30, 1849		$80 "
Of coin and bullion, of which over $45,000,000 was in the banks, and the balance hoarded and in circulation.		

There is much reason to believe that there never was more specie in the United States, in proportion to their population,

than there was during the general suspension of specie payments by the banks, from May 1837, to May, 1838; and consequently, the suspension could not have been caused by the small amount of specie, but by the excessive amount of paper money, the wild and extravagant spirit of speculation, the excessive imports of foreign goods, which served to paralize the industry of the country, and the rapid accumulation of a foreign debt; all of which causes contributed to alarm capitalists, bankers, and business men; to destroy confidence and credit; to depress property, and to derange business.

While the several States were making loans, and selling their bonds in Europe, and to the agents of European capitalists in America, from 1833 to 1838, in order to establish banks, make canals, railroads, and other improvements, and were increasing their debts in Europe about $100,000,000, the specie of the United States was increased, by means of importations, about $10,000,000, and the balance of the loans was imported in the shape of European manufactures. After our debts became so large that European capitalists became alarmed, and would not loan us any more money, nor buy our State stocks and bonds at scarcely any price less than a discount of from 20 to 80 per cent., the merchants and manufacturers still continued to glut our markets with foreign goods; and during four years, under the operation of the free trade compromise act of 1833, they drained the United States of specie, and reduced the quantity in the country from $76,000,000, October 1st, 1838, to 62,000,000, October 1st, 1842. From October 9th, 1839, when the most of our banks suspended specie payments the second time, to the passage of the tariff act in August, 1842, was one of the most gloomy periods in the history of our country; about as gloomy as the six years next prior to the passage of the tariff act of 1824, immediately after the heavy importations of 1815, 1816, and 1817; and exceeded only by the general embarrassment, depression, prostration, and suffering of the country during the period from 1784 to 1789, after the heavy importations of foreign goods at the close of our revolutionary war, when the country enjoyed, to the fullest extent, that glorious system of free-trade which the nullifiers have long been sighing after.

While the tariff act of 1842 was in operation, (from October 1st, 1842, to November 30th, 1846,) it operated to check and lessen the importation of foreign goods, to secure the home market, to a considerable degree, to the laborers and producers of our own country, and to increase the industry of the nation. The balance of trade was in our favor, a part of which was applied to the payment of the interest and principal of our large foreign debt, and a part paid to us in specie; the specie of the country increased about $18,000,000; and, at the end

of that period, our commerce, finances, banks, mining, manufacturing, and agricultural industry, were in a very flourishing condition.

NO. II.

Statement, in millions of dollars, of the capital and gross circulation of the Banks of the United States, and the specie in them, at the time of their reports, the nearest to the 31st of December, of each of the undermentioned years; also, estimates, in accordance with the bank reports and the foregoing calculation of the coin in circulation, and the whole circulation of coins and bank notes, the population, and the average circulation to each person at each period.*

	1810.	1814.	1815.	1819.	1824.	1829.
Capital	$52.6	$82.5	$89.8	$137	..	$145.2
Bank notes issued	28.1	45.5	68	44.8	..	59
Specie in banks	15.4	17	19	19.3	$18	21
" circulation	15	11	8	10.2	3	4
Total circulation	43.1	56.5	76	55	50	63
Population, (millions)	7.3	8.3	8.4	9.6	11	12.8
Dollars to each person	$6	$6 3-4	$9	$5 3-4	$4½	$5

	1833.	1836.	1842.	1845.	1846.	1849.
Capital	$200	$290 3-4	$234	$202	$209	$218
Bank notes issued	94.8	149.1	66	108 1-2	112	132
Specie in bank	....	37.9	35-4	43	38	45.4
" circulation	15	22	28.6	32	42	34
Total circulation	110	171	92.6	142 1-2	154	166
Population, (millions)	14	15 1-4	18.3	20	20 3-4	22 1 2
Dollars to each person	$7 3-4	$11	$5	7 1-8	$7 2-5	$7 3-8

Our foreign commerce has not only affected the specie in our country, but it has had a general influence also upon the circulation of our banks. Prior to the acquisition of California in 1848, the production of gold and silver annually by our mines, was but little over half a million of dollars, About $2,000,000 more than the products of our mines were needed annually to satisfy the pride of the people, and supply them with utensils and ornaments; and to keep pace with the increase of our population, requires an increase of coin of $2,500,000 annually; so that we needed about $5,000,000 annually to supply the wants of the country, and have a sufficient specie basis to sustain our banks, and maintain the credit of our paper currency. The amount of specie in the United States is so exceedingly small, in proportion to the population and commercial wants of the country, that large importations of foreign goods, and an exportation of specie to the amount of $4,000,000 or $5,000,000 a year, for two or three years in succession, will inevitably weaken the banks very much, produce a panic, and run upon many of them, and cause many failures, if not a general suspension of specie payments. This is verified by the commercial revulsion from 1837 to 1842. In May, 1837, nearly all the banks in the United States suspended specie payments;

* A portion of the amount of bank notes in circulation, and specie in the banks at the end of the years 1810, 1814, 1815, and 1829, are estimates of Mr. Gallatin, which have been generally adopted and contained in our official reports since 1834. The whole column for 1824, are estimates of mine.

during the year ending September 30th, 1838, our imports amounted to but $108,486,616, including $17,747,116 specie, and but little over $90,000,000 in merchandise and foreign products; our exports the same year amounted to $113,717,404, including but $3,508,046 in specie—that is, we exported, exclusive of specie, over $110,000,000 in amount, and imported but little over $90,000,000; paid off several millions of debts, and got a balance of over $14,000,000 specie to sustain our banks. This enabled nearly all the banks in the old States, and many in the new ones, to resume specie payments during the spring and summer of the year 1838, and to go on for some time prosperously; but the free-trade compromise act again invited large importations of foreign goods, amounting during the year ending September 30th, 1839, to $162,092,132, including only $5,595,176 in specie; while our exports were but $112,251,673, exclusive of specie to the amount of $8,776,743 —showing a nominal balance of trade against us that year of about $44,000,000; a drain of over $3,000,000 of specie from the country, and a large increase of our foreign debt.

This large balance of trade against us and drain of specie, occasioned a second suspension of specie payments on the 9th of October, 1839, by Mr. Biddle's United States Bank of Pennsylvania, which was soon after followed by nearly all the banks south and west of the State of New York. No other country ever felt so quickly and sensibly, and suffered so severely, the disastrous effects of excessive importations of foreign goods, and an unfavorable balance of trade; for no other country ever had so small an amount of specie in proportion to the extent of their commerce; and in no other country was the credit system ever carried to so great an extent, upon a foundation so slight and frail.

The amount of specie in the United States, October 1st, 1839, being about $73,000,000, and October 1st, 1842, but $62,000,000, in round numbers; the quantity in the banks $45,000,000, in 1839, and but $33,545,000, December, 1842, averaging about $39,000,000 left in circulation, including what was hoarded up and withdrawn from use, from 28,000,000 to $29,000,000.

When specie is exported, it is withdrawn entirely from the vaults of the banks in the commercial cities, and they draw the specie from the banks of the country and the interior cities, and the amount in circulation is scarcely affected at all. Export two years in succession to pay for foreign goods, $5,000,000 each year more specie than is imported, accompanied by a great increase of debt by means of heavy importations, these $10,000,000 being withdrawn from the banks, reduces their specie to about $30,000,000, and this, of itself, will often produce a panic and a run upon the banks, and cause a draw upon

them of $5,000,000 or $10,000,000 more, and thereby occasion a failure of many of them, and perhaps a general suspension of specie payments. The suspension of October, 1839, was occasioned by the exportation of specie, and the heavy importations of goods the previous year, though the balance of specie exported was but little over $3,000,000; and the suspension of May, 1837, was in consequence of the immense importation of foreign goods; the rapid accumulation of a heavy foreign debt, and the anticipation of large exportations of specie to pay it; the great expansion of the banks, and their heavy loans to speculators who could not pay. All these things contributed to create a panic, and induce a withdrawal of deposits, and a run upon the banks, and soon led to a general suspension of specie payment in self-defence, and before the anticipated exportation of specie to pay our foreign debt had commenced.

Statement of the amount of bank notes issued to each inhabitant, and the estimated amount of coin and bank notes in circulation, in each of the following divisions of the United States, at the date of their reports nearest to the last day of December, of each of the undermentioned years.

	1836. Bank notes.	1842. Bank notes.	1842. Coin and Bank notes.	1845. Bank notes.	1845. Coin and Bank notes.	1849 Bank notes.
Maine, New Hampshire, and Vermont	$5 1-2	$3 2-3	$4	$4	$5 1-2	$5
Massachusetts, Rhode Island, and Connecticut	15 2-3	9 5-8	11	13	19 1-2	16
New York, New Jersey, and Pennsylvania	12	4 1-8	5 5-8	6 3-4	9 1-2	7
Ohio, and other North-western States, including Iowa	5 3-8	1 7-8	3 1-4	2	3 1-2	2 7-8
Delaware, Maryland, Dis. of Columbia, Virginia, and North Carolina	6 7-8	3 3-8	4 7-8	4 3-8	7	6
Kentucky, Tennessee, and Missouri	4 5-8	2 1-3	4	5	6 3-4	5
Slave States south of 35° of latitude	14 3-4	4 1-8	5 1-2	4	6 1-4	5 1-2
United States	9 1-2	3 5-8	5	5 3-8	7 1-8	5 7-8

For some months, annually, after harvest, including the fall and forepart of the winter, the bank notes of the commercial and manufacturing States are sent into the agricultural States to pay for agricultural products; and during that portion of the year, the circulating money of the agricultural States is greater than is indicated in the above table; but the merchants soon collect the greater portion of it and send it to the commercial cities to pay for goods; so that during half or more of the year, it is much less, and perhaps does not average more than above stated during the years referred to.

Bank paper being a cheaper currency than coin, its natural tendency is to displace coin, and induce its exportation and consumption in the arts. The balance of trade being generally in favor of manufacturing and commercial and against agricultural States, the tendencies of trade are to drain the latter of their coin, and to transfer it to the former. The products of manufacturing labor, when sold in the markets of the commercial world, amount to about twice as much as those of ag-

ricultural labor employed in either cold or temperate climates; but not so when the latter is employed in the culture of cotton, sugar, coffee, and other tropical products, in a soil and climate adapted to them. Labor employed in mining and manufacturing in Great Britain, or in the United States, is more than twice as productive as agricultural labor can be made in Ohio and the North-western States. In fact, the average income of the people of the manufacturing States of Massachusetts and Rhode Island, and of Great Britain, is more than twice as great as that of the agricultural State of Ohio, and nearly twice as great as that of the agricultural State of Vermont.

A majority of mankind are inclined to spend all they can earn, and all they can get credit for, and as the wants of agricultural communities are generally greater than their incomes, they often buy more than they can pay for with their crops within the year; and hence agricultural countries are usually involved in debt; the balance of trade is almost universally against them; and this drains them of their precious metals, and tends to depress their industry and the price of their products still more. Poverty, and nothing but poverty, a want of ability to pay promptly, and a loss or diminution of credit, tends to check importations, and to restore the balance of trade, by lessening the demand for, and the price of goods, and the inducement to import them.

As long as the balance of trade is against a country, it must either export its specie to pay such balance, or buy on credit, accumulate a debt, and eventually be drained of its specie to pay interest, as well as the principal of the debt. Bank notes may, for a time, supply the place of coin, and thus afford a temporary remedy; but in the end, they aggravate the evil.—By inflating the currency in some instances, and in others keeping it full, they keep up, and often raise the price of both domestic and foreign products, and thereby tend to prevent the exportation of domestic products; to encourage importations; to increase both the quantity and value of goods imported, and exports of specie to pay for them; and to diminish the industry of the country by depriving its own citizens of the benefit of its markets for their products. The necessary consequence is, a run upon the banks for coin, a great diminution in their circulation, many failures of banks, and numerous bankruptcies among the people, attended with a depression of property and industry, and wide-spread embarrassment throughout the country. Such a revulsion necessarily checks importations for a time, and as exportation goes on as usual, the balance of trade is eventually turned in its favor; specie again flows in, and the country partially recovers from its embarrassments.

Any measures which tend to increase the productive industry of a country, by securing its markets to its own laborers

and producers, tends also to increase its wealth and domestic commerce; to lessen its imports of such articles as are, or may be produced at home; to turn the balance of trade in its favor; and to attract to it, and retain, a large amount of the precious metals as a necessary means of carrying on its domestic commerce. Hence every country, taking a long series of years together, attracts and retains an amount of the precious metals, and maintains an amount of money in circulation, just in proportion to its condition, and the value of its productive industry and commerce; and hence you can readily deduce the amount of its productive industry and commerce from the average amount of its circulating money, and vice versa. Compare the average circulation of Massachusetts, Rhode Island, and Connecticut, from 1836 to 1850, with that of Ohio, and the other North-western States, or even with that of Maine, New Hampshire, and Vermont, and the reader will have a complete illustration of this truth.

This is the principle upon which Gregory King in 1696, and Humboldt in 1804, estimated the amount of money in circulation in each of the countries of Europe; and this is the principle upon which many of the estimates in the following table, and in table number IV. of this section, are formed. As nations are now accustomed to keep records of their foreign commerce, and as the record evidence of the circulation of paper money in the United States, Great Britain, and Ireland, is nearly perfect, these records furnish data for an estimate approximating to accuracy, of the amount of circulating money in every country of Europe, such as was not possessed by Humboldt when he wrote, nor by any author before his time.

NO. IV.

Estimates founded partly on official estimates and records of the population and circulating money, including coin and bank notes, in each country of Europe and America, and the amount to each person at the end of the year 1840.

	Population.	Circulating money	Amount to each person.
Great Britain	16.2 millions.	$192 millions.	$10 1-2
Ireland	8.2 "	44 "	5 1-3
France	34 "	272 "	8
Holland and Belgium	7.5 "	67 5 "	9
Spain and Portugal	15 8 "	79 "	5
Italy, (including Lombardy)	22.5 "	123 5 "	5 1-2
German Austria	15 "	60 "	4
German States	14 "	75 "	5
Prussia	14.5 "	65 "	4 1-2
Denmark, Sweden, and Norway	6 "	24 "	4
Turkey	9 "	22.5 "	2 1-2
Russia, Hungary, and other eastern nations of Europe	69.3 "	243 "	3 1-2
Total of Europe	235.0 "	1,267 5 "	
United States	17.3 "	138 "	8
West India Islands	3.0 "	30 "	10
British North American Provinces	1.6 "	8 "	5
Brazil	6.4 "	28 "	4
Mexico, and all Spanish American nat'ns	16.9 "	58.5 "	3 1-2
Total of Europe and America	280 "	1,549 "	5 1-2

NO. V.

Statement of the result of the foregoing facts and estimate of the amount of coin and paper money in circulation in Europe and America, and the average amount to each person at different periods from A. D., 1500 to 1840.

Years.	Coin.	Paper money.	Total.	Amount to each person.
1500	$156 millions.	....	$256 millions	$1.50
1600	369 "	....	369 "	3.00
1700	690 "	$5 millions.	695 "	4.50
1800	1,219 "	220 "	1,439 "	7.00
1810	1,335 "	395 "	1,730 "	7.95
1830	1,186 "	336 "	1,522 "	5.85
1840	1,200 "	340 "	1,540 "	5.50

As there was not a vast amount of paper money in circulation from 1805 to 1815 in several countries of continental Europe, as well as in Great Britain and the United States, which was really depreciated from 10 to 50 per cent. below specie, and yet passed nominally at par in the purchase of merchandise and other property, we may treat the circulation of paper-money in 1810 as equal, in the common transactions of trade, to $450,000,000, and the whole circulation as equal, nominally, to $8 to each person. Here we can see a good cause for a great decline of the prices of manufactured goods since 1810, independent of the less amount of labor required to produce them.

The largest amount of money, including bank-notes and coin, in proportion to the population, which ever existed in the civilised world, or, probably, ever will exist, was during the existence of the bloated paper currency in Great Britain, Russia and Austria, from 1805 to 1815; when half of Europe seemed deluded with the idea that mere promises to pay were as good as payment itself; and they sought to aid themselves with their miserable currency to conquer Napoleon. The paper, however, rapidly depreciated from 10 to 80 per cent., in proportion to the excess put in circulation beyond the commercial wants of those countries respectively, and their ability to redeem it in coin; and their golden and delusive dreams were soon dissipated. Nothing less than the frosts of a Russian winter gave the first check to the increasing and colossal power of Napoleon.

The invention of paper money seems to have been made by the English, the latter part of the seventeenth century, and first carried into effect by means of the Bank of England. It gained but little credit for many years; but such has been the mistaken confidence and delusion of the public in many countries on this subject, at several periods, that it has served to stimulate a wild spirit of gambling speculation, and has probably done more to foster reckless extravagance, fraud and knavery, and to promote dishonesty and corruption in business, during the past century, than all other causes combined.

Nearly $2,000,000,000 must have been lost by the holders of paper-money during the last century and a half.

The great Real Estate Bank was got up at Paris by John Law, in 1719, usually known as the Mississippi scheme; the stock of which was puffed into consequence, and rose several hundred per cent. in its exchangeable value; all Paris and a large portion of the capitalists and business men of France became excited on the subject, speculated largely in its stock, and fancied that they had made themselves rich; but in a few months the bubble burst, the bank exploded, and the circulation of the notes of the bank (which was extensive), as well as its stock, became worthless; and embarrassment, ruin and bankruptcy were suddenly spread, and extended throughout the nation. This disastrous experiment entirely cured the French people of their mania for paper-money, and they confined themselves to a specie-currency for more than two-thirds of a century; until the madness of the democratic party, during the French revolution, in the latter part of the eighteenth century, induced the government to issue many millions of paper-money, called assignats, which were payable in the confiscated lands of the clergy and nobles. This experiment failed also, and was very disastrous in its consequences, though not equally so as the great Mississippi scheme of Law.

During the American revolution our forefathers resorted to the expedient, which had become very prevalent in Europe, of issuing government notes, called continental money, to aid them in their emergency. From 1776 to 1781, $359,547,027 were issued by order of the American Congress, and it depreciated so rapidly that in 1780 it was not worth more than two and a half cents on the dollar; and in 1782 less than one cent on the dollar. The result was most distressing to the army, and very disastrous and ruinous to a large portion of the whole nation. It was funded in 1790 at only one cent on the dollar.

As heretofore shown in Table II. of Section 6, the paper money of Russia, Austria and Portugal, as well as that of England, France, and the United States, has been greatly depreciated, and great losses have consequently been sustained by the holders of it in each and all of those countries.

It is stated in Brande's Encyclopædia, that no fewer than two hundred and forty of the country banks failed in England and Wales during the years 1814, 1815, and 1816, occasioning nearly as much distress, loss, bankruptcy, and suffering, as the great Mississippi scheme of France in 1719. During the years 1816 and 1817 a great number of banks failed in the United States; many failed in 1825 also; and the failures in the United States during the revulsion, from 1837 to 1842 amounted to over one hundred and sixty, with a nominal and pretended capital of over $132,000,000, and a circulation of over $43,000,000.

A paper currency, which the maker is not able and legally bound to redeem in coin at the will of the holder, whether issued by the government, by incorporated or joint banks, or by individual bankers, is one of the greatest evils which can afflict any country. But notwithstanding the numerous frauds, losses and evils, resulting from paper-money, the conveniences and advantages arising from well-managed banks are very great; and banking is so interwoven with our system of doing business, that it is difficult and perhaps not advisable to attempt to dispense with bank-notes, as a part of the circulating medium of our country. Something, however, should be done to secure the public, and to prevent, as well as to punish fraud. The individual liability of bankers, without more speedy and efficient remedies to enforce such liabilities than the common law affords, and different judges from some we have in the United States, proves to be almost worthless. I entertain no doubt, however, that remedies may be devised which would make the individual liability of bankers available to promote the security of the public.

The public mind seems to be tending towards the following points, as necessary safeguards in our system of banking:—First, that government stocks in good credit should be deposited with some government officer, in pledge to redeem their outstanding notes; secondly, that such officer should keep the bank-plates, have all the notes struck off, countersigned and registered in his office, and delivered to the bankers, and that uniformity, as far as practicable, should be preserved, in the plates of all the notes of the same denomination in the State; thirdly, that every bank should keep on hand in specie, and in specie funds subject to draft at sight, an amount equal to from 30 to 50 per cent. of all their liabilities to the public, and to enable them to pay their debts in coin, or its equivalent, whenever called on; fourthly, that none but those who have capital to lend, and do not wish to borrow money, should become bankers, and to secure this object that no bank should be allowed to make loans to its directors, officers, or stockholders, either directly or indirectly; fifthly, that the directors, or other managing officers, should be personally liable for all the debts of the institution, and that the private property of the stockholders should also be holden to an amount equal to their stock; sixthly, that the power to alter and amend the charter, in order to correct abuses, should be reserved; and seventhly, that all violations of law, by the stockholders, as well as the officers, should be declared and punished as crimes; and that neither the bank nor any stockholder, director, or other officer thereof, should be allowed to set up any violation of law as a defense to a suit on any contract of such bank, bank-officer or stockholder.

The first point stated is substantially the basis on which the Bank of England (the first bank which ever issued notes) has always done business, and the same principle of banking is now in operation in the States of New York and Ohio. The second point is important to secure the stockholders of banks, as well as the public, against fraudulent and excessive issues; and also, to guard against counterfeits. This provision also, is in operation in New York and Ohio, under their general banking laws. The third point seems absolutely necessary to secure at all times the redemption of bank notes in gold and silver; and notwithstanding the opposition of bankers, it appears to be increasing in importance in the public mind. As to the fourth point, the case of the late United States Bank of Pennsylvania, as well as of numerous others, has created a very general impression in this country, that the payment of the capital stock of a bank in coin, to any amount whatever, affords but little security to the public, if the directors and officers of the bank can take it half or all out again in the shape of loans to themselves; that when the directors, managing stockholders, and officers, have thus loaned to themselves perhaps two or three times as much as the amount of their stock, it is often for their interest to have the bank fail, and its notes depreciated, to enable them to buy them up at half price, or less, and apply them in payment of their own obligations; their indirect gains by such failure being much greater than the loss of their stock. To allow speculators, as well as business men who want money, to manufacture paper money at pleasure and loan it to themselves, presents too many and too great temptations for over-issues and improper loans, to be consistent with a sound currency, and the security and safety of the public. The fifth and seventh are also important, to deter selfish and cunning men from attempting to make bank paper an instrument to defraud the public; and also to prevent them from setting up their own violations of law, to defeat the honest claims of their innocent, confiding, and deluded creditors. But what appears to me equally as important, and perhaps more so, than any of the points above named, is a radical change in the mode of electing directors, so as to give all the stockholders a fair voice in the election of directors, and the management of the bank, and not allow a few, who own a majority of the stock, to combine together and control the whole, for their own private advantage, regardless of the safety of the public, and of the rights of the other stockholders.

It is very difficult to sustain banks in agricultural States, against which there is a constant balance of trade; but very easy to sustain them, with ordinary prudence and good management, in manufacturing States, in whose favor there are generally heavy debts, as well as balance of trade. Hence

the necessity of greater checks and greater prudence, in the former than in the latter.

ART. III.—SWAMP LANDS OF MISSOURI.

The act of Congress, relinquishing the Swamp Lands to the respective States in which they lie, gives to Missouri 1,517,287 acres: much the largest part, and indeed nearly all of which is situate in the south-eastern part of the State.

Commencing in the neighborhood of Cape Girardeau, they extend southwardly, nearly in the direction of the Mississippi river, into the State of Arkansas. Their length in Missouri, in a direct line, is estimated at one hundred and eight miles: constituting throughout this entire distance a barrier between the river and the southern part of Missouri, and the northern part of Arkansas which may be regarded as impassable for all practical purposes. And hence, the country west of the these swamps, though destined to become one of the most interesting districts west of the Mississippi, has remained almost in a state of nature to the present time.

The General Assembly of Missouri will, doubtless, adopt some plan at its next session, to remove this impediment to the settlement and improvement of this interesting part of our State: for we can imagine no sound reason why the work should not be entered upon without delay. The Lands can be appropriated to no other purpose until the improvement is complete: and, whether they prove sufficient for that or not, the sooner the experiment is made the better. The only important question that can arise in the Legislature, is that touching the policy to be pursued in carrying on the work—whether the State shall undertake the improvement on its own account; or, whether it will contract with individuals to drain the submerged lands, construct levees, &c., for a portion of the land to be reclaimed. We have seen estimates, and heard many opinions expressed in regard to the probable cost: but no complete survey having been made, such opinions should have but little influence on the Legislature; but be the plan of carrying on the improvement whatever it may, a thorough survey should be regarded as an indispensable preliminary.

The lands to be reclaimed are regarded by those who are acquainted with the country, as being equal in fertility to any on the Continent; and, owing to their peculiar location, must become as valuable for farming purposes as any land in the Valley of the Mississippi, of equal distance from a large city. But to render these lands valuable, and to insure their settle-

ment and improvement, the obstructions to the outflowing of the water must be completely removed, and levees constructed te prevent inundation from high floods in the Mississippi river.

Consequently, if the improvement be undertaken by the State, she would be under the necessity of advancing the amount necessary to complete it before any means can be realised for that purpose by a sale of the land ; and if it should turn out in the end that the land reclaimed would not pay the cost of draining &c., the State would be compelled to bear the deficit. For the purpose, therefore, of guarding against this and other contingencies, it is prudent, at least, to inquire whether the end cannot be attained through the agency of individual enterprise, without incurring any other obligation on the part of the State than that of making the necessary surveys and contracts.

It is probable that if a complete survey were made by skil-engineers, individuals or companies might be found who would undertake to drain the submerged lands, construct the necessary dikes, levees &c., for one-half, or perhaps three-fourths of the land to be reclaimed. Bnt if the primary object can be effected by an appropriation of all the lands to be reclaimed, the State ought to be highly satisfied. If, however, the subject can be so managed as to have something left after the contemplated improvement shall have been completed, such overplus should not be disregarded.

Were the work let out to the lowest bidder to be paid for in land when reclaimed, the State would incur little risk of imposition on the part of the contractors : for their own interest would operate as a sufficient guaranty for the fulfilment of their contracts.

But it may be found upon examination that a portion of the submerged land in this State cannot be reclaimed without the co-operation of Arkansas ; and, compelled to wait on the movements of that State, the work in Missouri may be delayed for many years. To guard against such hindrance, we trust that the Legislatures of these States will endeavor to act in concert, and adopt a plan that will promote their mutual interest.

The following Table, copied from the report of the Commissioner of the General Land Office, shows the quantity of swamp lands reported by the Surveyor General up to the year 1849 :

States.	ACRES.	States.	ACRES.
Ohio,	303,329	Louisiana,	2,266,075
Indiana,	981,682	Michigan,	4,544,189
Illinois,	1,833,412.94	Arkansas,	4,907,673
Missouri,	1,517,287	Wisconsin,	1,259,269
Alabama,	436,450	Iowa,	33,813
Miss'pi,	2 239,987	Florida,	562,170
Total,	- - - -		20,785,336.94.

There is, doubtless, a large quantity of swamp lands in Florida and other new States, not embraced in the Commissioners' Report.

The following is a copy of the law relinquishing these lands to the States :

"AN ACT to enable the State of Arkansas and other States to reclaim the 'swamp lands' within their limits.

"*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled*, That to enable the State of Arkansas to construct the necessary levees and drains to reclaim the swamp and overflowed lands therein, the whole of those swamp and overflowed lands, made unfit thereby for cultivation, which shall remain unsold at the passage of this Act, shall be, and the same are hereby granted to said State.

SEC. 2. *And be it further enacted*, That it shall be the duty of the Secretary of the Interior, as soon as may be practicable after the passage of this Act, to make out an accurate list and plats of the lands described as aforesaid, and transmit the same to the Governor of the State of Arkansas; and at the request of said Governor, cause a patent to be issued to the State therefor; and on that patent the fee simple to said lands shall vest in the said State of Arkansas; subject to the disposal of the legislature thereof: *Provided, however*, That the proceeds of said lands, whether from sale or by direct appropriation in kind, shall be applied, exclusively, as far as necessary, to the purpose of reclaiming said lands by means of the levees and drains aforesaid.

SEC. 3. *And be it further enacted*, That in making out a list and plats of the land aforesaid, all legal subdivisions, the greater part of which is 'wet and unfit for cultivation,' shall be included in said list and plats; but when the greater part of the sub-division is not of that character, the whole of it shall be excluded therefrom.

SEC. 4. *And be it further enacted*, That the provisions of this Act be extended to, and their benefits be conferred upon,

each of the other States of the Union in which such swamp and overflowed lands, known and designated as aforesaid, may be situated.

HOWELL COBB,
Speaker of the House of Representatives.
WILLIAM R. KING,
President of the Senate pro tempore.
MILLARD FILLMORE.

ART. IV.—MOULDERS' UNION FOUNDRY ASSOCIATION.

We commend the following account of the "Moulders' Union Foundry Association" to the special consideration of mechanics and artizans, under a strong impression that similar associations may be established in many other branches of industry, greatly to the advantage of those who enter into them.

We discussed this subject in the first volume of the "Western Journal," for the purpose of bringing it to the consideration of the General Assembly of Missouri; and, although a law, authorising the formation of corporations for industrial purposes was passed by that body, yet it contains certain restrictions which are calculated to abridge its usefulness. The first objection to this law is, that it requires all the stock to be paid in money. Owing to this provision, if one individual should possess real estate and others should own raw material and the necessary machinery and implements for carrying on a certain kind of business, they could not put these articles in as stock; nor, are mechanics or laborers allowed to receive stock for their services.

One of the objects of the law was to encourage mining: but, one owning mineral lands cannot become a member of a mining corporation without paying money for his stock. The absurdity of this restriction is so apparent, that we deem it unnecessary to enter into an argument to prove that it ought to be repealed.

The next objectionable feature of the law, is that which requires the capital of the association to be at least, $5,000. While this restriction is not less absurd than the first, it is yet more odious; for it denies a privilege to individuals of small means which it grants to the rich — a distinction which should never be recognised in a republican government; nor, should such a provision be permitted to remain on our statute books, unrepealed.

Several associations have been formed under this law; and, we are persuaded, that were the objections above noticed, removed, it would afford encouragement to many branches of industry which are now retarded for want of capital.

[Editors Western Journal.

From Cist's Advertiser.

"Eighteen months since, I prepared a statement of the history, character and operations of an Iron moulders' association, then forming at Industry, in this county, which was extensively republished in the journals of the day, as a practical evidence of the power and influence of associated labor, when placed upon a proper basis.

Within a few weeks a similar establishment, on the same principles, substantially, has gone into operation at California, a town recently laid out by A. P. Johnston and others, eight miles above our city, and on the bank of the Ohio river.

The great problem of the age is, and for some years past has been, what is the proper means of securing to labor its adequate remuneration, and its just social position in the community—heretofore, the one being far short of its proper earnings, and the other a libel and a satire on our republican institutions, which proclaim all men free and equal.

For this great object, various reformatory measures have been proposed—Fourierism, Socialism, Owenism, St. Simonianism, Icarianism, etc.—all built upon the community system, and recognizing one correct principle—the power of associated industry, by incorporating into their schemes such other elements of weakness and discord, as to have resulted invariably in failure.

Among these elements, I name the abandonment of the family relation and of the individual principle, and the casting into one common lot, the fortunes of the idle, the improvident, and the dissipated, with those of the prudent, the industrious and the moral members of society. Most, if not all, of these enterprises, also committed suicide in their renunciation of religious principle. The general result, therefore, as was predicted by intelligent persons, has been thus far a signal failure, as all pecuniary and social movements not based upon moral principle, always must prove.

Sympathising with the masses, I have always felt sad in the contemplation of the great fact, of every day observation, that with the improvements of the age, the exactions on labor become more oppressive as its rewards diminish. This is the more to be regretted, since all classes in society are interested that labor should be amply compensated—the real, if not the apparent interest of the capitalist employer, being the same. In the establishment of such associations as I have referred to, however, I see light emerging in the clearing away of surround-

ing clouds, and contemplate the dawn of a better state of things for the stout hands and willing hearts of the industrial and operative classes. These operations are destined, as I believe, to assign labor its just reward, and proper position in society. I will state their principle and organization, with as much brevity and simplicity as possible.

The necessary capital for the California establishment has been made up of stock to the extent of 140 shares, sixty of which constitute the foundry enterprise, the shares being in value one hundred dollars each, subscribed by those engaged in the movement. This sum was disbursed in the purchase of flasks, patterns, and raw materials of coal, coke, and pig metal —the building having been paid for, in stock, and the ground donated to the enterprise.

With this preparation and with seventeen practical moulders engaged in it, commenced the enterprise. A foreman and manager were appointed by the concern, with a per diem compensation for their services. It is a significant and distinctive feature of this movement, that these individuals receive less salary than any of the moulders earn for their day's labors—every thing here being paid as piece work, and at the highest price ruling elsewhere.

Every man is entitled to draw, at any time, any amount within the value of his earnings, although in point of fact, the usual average withdrawn is about one-fifth part, or twenty per cent. of the whole, being for the expenses of living—the residue accumulating until it enables the owners to purchase additional shares of stock, or until it may be needed for any other purpose, house-building for example. No person is employed in the foundry who is not a share holder, except the clerk. On the other hand, no individual can claim employment from the fact of his holding shares. The manager, who is elected by those concerned in the enterprise, engages or discharges, just as in any other establishment. The products of the labor are sold wholesale at the society's warehouse on Main street in Cincinnati, and at retail stores elsewhere.

Of course new stock is constantly in progress of creation, for the purpose of enabling the members to enlarge their investments, or to permit others to take an interest in its benefits either by laboring in it, or by investment, otherwise.

This additional capital is employed in adding to the stock of flasks, patterns, and purchase of additional materials.

It must be obvious that in the very nature of the case, these establishments congregate a very superior body of workmen here. Finer and neater work cannot be found elsewhere.

What the issue of this California enterprise will prove, may be inferred from the position of affairs in Industry at this time.

That concern has been carrying on a business so prosperous,

L. of C.

that after making extensive sales up to date, it has accumulated a stock of manufactured goods, to the value of twenty thousand dollars. This, together with their entire fall and winter manufacture, will be sold off before the first day of April next. The credit of this establishment in the pig metal market, is more than adequate to all its wants. During the two years of its existence, the aggregate capital of the concern has increased from 2,100 to 16,000 dollars.

A few details will suffice to show its operation on the business and prospects of individuals employed in the foundry.

One of the associates, after working fourteen months, during which time he drew out all his current expenses, balanced his accounts with a credit to him, converted into stock, to the value of eight hundred dollars.

Another, who has worked eighteen months here, has a town lot paid for, and five hundred dollars in stock, to his credit.

Another—the foreman of the establishment—has a town lot, with a brick house on it, paid for within 100 dollars, and four hundred dollars in stock, to his credit. This house and lot is amply worth 1,200 dollars. He has worked two years in this enterprise.

The moral results of this enterprise should not be lost sight of, in examining the subject. Most of these moulders are single men, who under the old order of things had no motive to save, and every inducement to spend money as fast as they earned it. Here they find their earnings grow gradually into sums, which will enable them to acquire homes of their own as soon as they assume the family relation, and a community is thus built up where all are, or may be owners, and not tenants alone.

This association, as well as its predecessor at Industry, is organized under the law of the State of Ohio, authorizing such partnerships. Joseph H. Bard is still the agent of the Industry establishment, whose warehouse is at No. 378 Main street; Holenshade & Mitchell, are the agent of that of California.—The depot is at their warehouse, No. 395 Main street.

These enterprises, practical as they are, in all their bearings, will doubtless shortly extend the associated labor principle to other industrial operations.

From the American Railroad Journal.

ART. V.—STIRLING'S PATENT WROUGHT IRON AND ALLOYS.

In the August number of the Practical Mechanic's Journal, we drew attention to the very valuable results obtained from Mr. Morries Stirling's process for toughening and strengthening cast iron, as a branch of practical improvement in which that gentleman has been eminently successful. As a sequel to our former notice, we have now to introduce to the practical mechanic the several other equally valuable compounds of wrought iron, and alloys of the most costly metals, which have been elucidated in the course of Mr. Stirling's elaborate researches.

For the strengthening of malleable iron, an alloy is made with block or grain tin, the mixture being accomplished in the puddling furnace. The addition of so small a quantity as a two-hundredth part of tin, produces a marked change in the appearance and quality of the iron; and a proportion of one-hundredth produces a metal which breaks with a chrystaline fracture, but works well under the hammer while hot, as well as in the squeezer, the rolls and the smithy, and has a fine smooth surface. This compound answers admirably for rolling, in combination with common iron, to form the upper surface rails and for similar purposes, where an anti-laminating quality is essential. Bismuth, antimony and arsenic, may in like manner be used with a somewhat similar effect.

The addition to zinc, whether metallic, or as an oxide or carbonate, as calamine, has also a very powerful effect upon malleable iron, which thus becomes brighter in color, and of a clearer surface, while it retains its ductility and fibrousness.—Copper added to the metal thus treated, hardens the malleable iron. A very slight proportion only is used—not more than from a two-hundredth to a one-hundredth of the mixed iron.

Manganese, mixed with cast iron, gives the resulting malleable iron made according to any of these processes a more steely character; the black oxide of commerce, in the proportion of one per cent. renders the puddling process more rapid, and gives increased hardness.

The process adopted in the improved manufacture is this:—Common iron being brought to a thoroughly liquid state in the puddling furnace, a proportion of from 3 to 4 pounds of calamine, to every puddling charge of 4 1-4 cwt. is thrown among it, and well incorporated with it. When forged, or squeezed, and drawn through the rolls, it becomes No. 1, or puddle bar, but it is in reality nearly equal in quality to No. 2 of the ordinary iron; and a second rolling brings it up to an equality with

No. 3, or best bar, thus effecting an economy in the manufacture to the extent of one entire process. Instead of common iron, No. 3 or No. 3 extra, toughened pig, may be used.—Wrought iron made from this is of a remarkably fiorous nature, the fibres being also much finer than when common iron is employed.

By another process, a proportion of from 2 to 4 pounds of tin, or from 1 1-2 to 3 pounds of metallic antimony, is added in the puddling furnace to each charge of 4 1-2 cwt. When boiled or puddled, squeezed, and rolled into No. 1, or puddle bar, the product is a very hard, crystalline, or anti-laminating iron. This is admirably adapted for the manufacture of nails and wheel tires. When adopted for this purpose, a pile is made up from three-fourths to five-sixths of No. 1 calamine iron, and from one-fourth to one-sixth No. 1 anti-laminating iron, the mass being rolled to the requisite section, having the anti-laminating metal on the upper surface of the rail, or on the outside of the tire. The junction of the two kinds of metal is quite perfect, as evidenced in several specimens now before us. The increase in cost, for securing this vital advantage of an anti-laminating quality, is only 7s. 6d. per ton.

The report of the commissioners appointed to enquire into the application of iron to railway structures, furnishes some useful data as to the ascertained strength of the iron under various tests.

In alloying the zinc and iron, Mr. Stirling's plan is to place in a cupola furnace, which has been used for melting either cast or wrought iron, and from which the charge has been run off, a quantity of zinc, which, melting easily, passes through the fuel, and coming in contact with the sides of the furnace, mixes with portions of the adhering iron. In this way an alloy of zinc, with from four to seven per cent. of iron, is produced; and this alloy is adopted instead of zinc alone, in the production of such alloys as are applicable for purposes for which brass and gun-metal are now used.

A very beautiful alloy, closely resembling gold, and named, from this reason, "British gold," is made by mixing this alloy of zinc and iron, with from one-sixth to one-fourth of an alloy of copper and manganese. The latter composition is produced by adding to melted copper a proportion varying from a two-hundredth to a fiftieth part of black oxide of manganese, covering the surface of the metal with a reducing flux, in order to reduce the oxide to the metallic state, and to prevent the access of air to the metal. When these two compounds are amalgamated, in the proportion of four parts manganese and copper to one of zinc and iron, a metal closely resembling standard gold is produced. A variation in the proportions of the two alloys correspondingly affects the color, hardness and tenacity

of the compound. As both the manganese and zinc have a hardening effect, a smaller quantity of one or both is to be used when a rolling metal is required, but the proportions we have stated give an easily workable and finely colored metal, possessing great malleability and ductility, and capable of a fine polish. A metal of good color may be obtained by using zinc alone, instead of the alloy with iron, or by substituting copper alone, instead of its alloy with manganese.

In all these alloys a small quantity of tin gives increased hardness. For some purposes, more particularly bearings, and portions of machinery exposed to frictional wear, the presence of from one to three per cent. of lead has a tendency to prevent heating.

To produce an alloy possessing the color and many of the properties of silver, but superior to other imitations of that metal in color, brilliancy, and susceptibility of polish, the alloy of zinc and iron is mixed, in various proportions, with copper and nickel, and with copper and manganese and nickel. Ten parts of copper, two of nickel, six of zinc and iron; or eight parts of copper, two parts of nickel, and four of the zinc and iron, are good proportions for this purpose.

The behavior of the metal intended for sheathing, bolts, and other similar purposes, when under test by Mr. Owen, of H. M. Dockyard, Woolwich, is shown by the following—

Abstract of a Statement made to the Lords of the Admiralty, June 4, 1848.

"The first series of experiments was made at Chatham on the patent alloys, for the purpose of ascertaining how the metal could be rolled and worked.

"It was reported—That the metal could be rolled as easily as copper into bolt staves, or sheathing, and at a heat not essentially different. Bolt staves, then rolled, were tried at Woolwich in the chain-testing machine, and broke with a strain of twenty-seven tons per square inch, being higher than any other metal used for such purposes. Iron breaks with a strain of 23 tons, and copper with 21.15 tons.

The next experiments were tried at Woolwich for ascertaining the strength of the metal as compared with the best sorts of gun metal. Its object was to determine how far it might be a substitute for gun metal in general castings, such as screw propellers, frame work, bolt, and deck nails, &c.

It was reported—That gun metal broke at 11 tons, while under precisely similar circumstances, the patent metal broke at 16 tons.

An experiment was then made on the stiffness of the two metals, as follows: bars of equal diameter (1-8 square inch),

were placed on supports at equal distances (2 feet 3 inches) and were then loaded with the same weight (6 1-2 cwt.) in the centre.

"It was reported—that the gun metal bent in the centre 5 7-16 inches, while the patent metal bent 1 2-16 inches; or as 18 is to 27.

"Another series of experiments on the manufacture and driving of bolt nails, was made at Portsmouth, with satisfactory results to all parties. A further series of experiments on their manufacture and comparative strength was again made at both Portsmouth and Chatham, and reported satisfactorily. All these experiments proved that the saving would be as great, at the average price of copper, as was at first stated; that is, that when copper is £100 per ton, the alloy would be £80 per ton. In addition to this, a saving is made of £4 per ton, owing to its lesser specific gravity.

"I would recommend its application to the following general castings: screw propellers, frame work, air pumps, cylinders, &c., bolt nails, deck nails, sheathing nails, (as recommended by Mr. Owen, the late supervisor of metals in the dockyard at Woolwich, who has tested the galvanic properties of the metal, and who has found it electro-positive to all copper, a quality which other sheathing nails do not possess); also for bolt staves, piston rods, and other uses where a metal that can be rolled like copper is required; also for sheathing, as it is much less acted upon by salt water, and other corrosive substances, than copper or gun metal, and on account of its closeness of texture, enabling the workmen to obtain a greater smoothness of surface. A corresponding increase of galvanic action is acquired, thereby decreasing fouling."

Most satisfactory evidence of the durability of the new alloy when applied for axle bearings, is afforded by Mr. Wright, of the carriage department of the London and northwestern railway, who, up to the end of 1848, had used no fewer than 3,000 of them for carriage axles; and by a report from the Southwestern railway, dated April, 1849, we find that two bearings, in van No. 25, put to work in June, 1848, and taken out in March, 1849, ran close upon 60,000 miles, and were not worn out when removed.

Messrs. Mears of Whitechapel, the eminent bell founders, have used these alloys for nearly every possible purpose with great success, and the practical experiments in rolling, tried at the Cwm Avon copper works, show the remarkable facility with which they are worked. The great management in machinery bearings, which the introduction of the new metal has everywhere brought about, satisfies us that we render good service to the practical mechanic by bringing it under his notice.

For the Western Journal.

ART. VI.—THE GREAT INDUSTRIAL EXHIBITION OF 1851.

"As the year of preparation slips away," says the London Athenæum, "the vast idea of this great exhibition begins to take palpable shapes, and project definite shadows. Whatever share England may take herself in the contest—in which the troops are all volunteers—it is now abundantly clear that her trumpet has been answered from all the States, and that the lists which she has opened, will be disputed by all the industrial armies of the world. The challenger must put her powerful sinews to the strain if she would hold her own against the universal spirit that she has evoked. Courier after courier is coming in to tell of the stir that is abroad; and amid the signals that are passing on every side, the ear already seems to hear the tread of nations on the march. "As an example," continues that paper, "let us refer to the spirit in which our nearest neighbor and most powerful rival, France, is taking the field. There, the challenge has been accepted in the high sense in which it was given. M. Dupin has issued an address to the manufacturers and producers of that country, urging them to sustain the honor of their own industrial banner, and pointing out the arms which they can wield with most effect." After quoting part of the philosophical reflections and ingenious suggestions of M. Dupin, the Athenæum adds—"Everywhere on the Continent of Europe the same spirit of honorable contest is aroused; and from beyond all the seas the heralds of coming industrial forces have been received by those who have the preparing of the lists and the presidency of the combat."

From other sources we receive the like information. It cannot now be doubted that the Industrial Exhibition of 1851, will be the grandest occasion of this age. It will present a convocation of all nations, and a congress of all arts. Europe, Asia, and America, the islands of the sea, in fine, every kingdom, tribe and tongue of civilized man, will have its representation of persons, mind, and matter, in London, during the coming year. The occasion will be a climax of peace, and the palace reared for the World's Fair, a most amazing monument of the progress of the age.

"is not for the people of Missouri to decline a contest where only men are competitors, and where the comparative munificence of nature in making up the abodes of men, becomes the subject of competition. Endowed by nature as countries seldom are, Missouri has nothing to fear by an exhi-

bition of her resources, even in the World's Fair. On the contrary, her people should exult in the privilege of entering the lists with other nations, and not let slip so rare an opportunity to vindicate their own superior advantages, and hold them good before an assemblage of the civilized world.

It is true, Missouri cannot compete with the countries of the old world, in the higher triumphs of science and art—in machinery, mechanism, the manufacture of fabrics for human comfort and luxury, nor even in the production of many of the common necessaries of life. But in the quantity and quality of the raw material, from which so many of the valuable results of civilization are obtained, and in the natural facilities for converting the raw material into its manifold useful shapes, Missouri cannot be excelled by any country on the globe.

It will be wise then for our people to know their strong points, and imitating the example of France, to put forth all their exertions in that field wherein they are most likely to stand pre-eminent. A few suggestions as to the proper mode of doing this, and of making available to our State the advantages offered by the approaching exhibition, may be both timely and acceptable:

It is desirable that there should be sent to the exhibition the finest specimens of iron ore with which Missouri abounds.—Purer ore cannot be found in the world. The president of the company owning and working the Iron Mountain, informs me that he will forward a boulder of ore from the surface of the Iron Mountain, which shall weigh from three hundred to five hundred pounds. I shall receive, in a few days, from the Moselle Iron works, on the Maramec river, about fifty miles west of St. Louis, a box of the most interesting specimens of ore abounding in that region. Arrangements are made for receiving a similar consignment from James' Iron works, further up the Maramec, the oldest, and in many respects, the most interesting Iron works in the State. The enterprising proprietors of the Pilot Knob should be and no doubt will be represented at London by boulders of their remarkable ore and by specimens of their manufactured article, produced by one continuous process into bloom Iron from the ore. The Iron Mountain Company will send specimens of as many as six varieties of manufactured Iron from their extensive Rolling Mill, now nearly completed, in the northern part of this city.

It is confidently believed that no country in the world, beside Missouri, will exhibit at London, iron ore so rich and malleable that it may be made directly into horse-shoes by a blacksmith at the usual blacksmith's forge. Missouri can do this, and it will be proper to send some specimens of suitable size and shape to have the experiment made, if desired, before the

committee that shall decide on the quality of iron ores, and award the premiums.

Missouri must excel in Iron ore. It is believed that she cannot be beaten in Lead ore. Measures have been taken to secure the transmission of rare and beautiful specimens from the Maramec region in Franklin county, and from the numerous and rich mines in Washington county. Many other mines could send massive and pure specimens, and it is hoped, several will go forward.

Copper ore has been promised by two gentlemen, and specimens will certainly be sent. No arrangements are yet made for the transmission of specimens of the zinc, nickel, cobalt, plumbago, and manganese to be found in the mineral region of Missouri. It is very desirable that specimens of each should go forward, and any person who may be able to send either, will render the State a service by so doing; for, although in these latter articles Missouri may not excel, the very possession of such a variety of metals, will give her an imposing rank and much consideration at the World's Fair.*

As in metals, so in valuable minerals, Missouri can show unwonted wealth. Specimens of the Cannel coal from near Jefferson City, from Cooper county, and from the higher Osage country, should have a place at the great exhibition. Steps are now taken to secure this result. The salines of the State, so numerous and so well adapted to profitable working, should not be neglected. Sealed bottles from the most strongly impregnated springs, would be convenient and appropriate articles of exhibition, and some one should see to their transmission.

In this connexion I must mention the fact, not generally known, that there is in Washington county, a bed of Kaolin, (China clay), now worked by Mr. Woolford, from which purely white transparent China has been made. Specimens of this ware have been sent to Liverpool, and have elicited much admiration. Mr. Woolford thinks that superior Kaolin cannot be found in China. Specimens of this clay, and, if possible, of the China ware manufactured from it, will be exhibited at the World's Fair, and with it, as a cognate material, the crude and ground felspar of Washington county, wrought by Mr. Woolford.

Arrangements are made to have the remarkable beds of silica near Ste. Genevieve, represented at London. A superior article for the manufacture of glassware, can nowhere be found. A few days since the city papers noticed the shipment of 1,000

* Since the foregoing communication was prepared, Dr. King, of this city, who is thoroughly acquainted with the mineral resources of Missouri, has promised the writer specimens of these metals and of other valuable minerals for exhibition at London. The proprietors of Mine La Motte can, and we hope will send at once to the Local Committee of St Louis, additional specimens of the rare metals found only in their mines.

barrels of this sand to Pittsburgh, for the Glass Works of that place. The Glass Works commenced here, will doubtless send specimens of their ware, and of this Missouri sand of which it is made.

Very fine sand, similar to the sand of Ste. Genevieve, exists in abundance on the lands of Nuckolls & Evans, proprietors of the Moselle Iron works, and also at points on the Missouri above.

The beautiful marble of Cape Girardeau, and the curious and interesting specimens of marble from the quarries in this county and almosti n this city, should not be omitted, in making up a full schedule and cabinet of Missouri's mineral wealth; nor should the porphyry and the granite of the mineral region, the white, the gray, the steel-colored and specular, suiting every fancy, and of admirable texture for building purposes, be neglected. The day is speedily coming when Missouri will from these sources, supply an older civilization in this great valley, with materials whereby it shall almost rival Greece and Rome in splendid and enduring architecture.

This is a hasty and imperfect review of what metallic and mineral wealth Missouri can send to the great Industrial exhibition. If there be any State pride in our people, they will act immediately and energetically, to secure a full show of these resources at the great Fair.

The advantages to be derived by our State from this exhibition are obvious: There will be congregated in London a million spectators of the wonderful Fair. The intelligence, the genius, the enterprise, the manufacturing experience and business sagacity of all nations will be represented there. Europe is growing old and crowded. Mines and minerals are failing, or wrought at increasing cost with increasing labor. The best investments of capital yield barely a living per cent. The minds of men will naturally be turning to new fields for the employment of their capital and labor. The metals and minerals of Missouri, so numerous and so pure, must draw attention. The astonishing advances made in the navigation of oceans by steam has removed the last barrier that hemmed in commerce and capital, and these agents of civilization are now cosmopolitan. The presence of representatives from Missouri can fix and improve the attention of inquirers at the great Fair; and the result possibly may be, shall we not say, probably will be, the formation of companies and colonies for settlement in our State, and the development of its wonderful resources by foreign capital, labor and experience?

But if nothing so definite or directly advantageous should ensue, we may reasonably expect that the purity and variety of Missouri minerals, reported as they would be, with all other facts concerning the Fair, in every journal in Europe, will

turn hither a constant tide of emigration, embracing perhaps thousands of miners, and operatives in those branches of industry wherein we so greatly lack the cheap labor and the experience of the old world.

If Missouri should perchance obtain the premium for the best iron, or lead ore, or other of her valuable minerals, the moral effect in favor of the State, in turning emigration and capital hither, would be tremendous.

In further advancement of this grand and desirable consummation, it will be advisable to take to London all the geological reports, surveys and land reports which have been made on the State of Missouri, and officially published by the U. States government. Accompanying these should be maps of the State, showing its admirable position in the great Mississippi Valley, its supreme advantages of inland commerce, and the locality of its mines of metals and minerals. But chiefly, as chief in interest to the old world, should there be a map of the counties from St. Louis to the western border of the State, embracing the surveys for the route of the Pacific railway, with accurate delineations of the beds of iron and lead ore, the salines and coal fields that will be traversed by the road. Specimens of these minerals taken from the line of surveys, and exhibited with the map of the survey, would give a vividness to the great promise of the international railway, in the matter of permanent and profitable business, more than all else calculated to give confidence to foreign capitalists, who might, indeed, without awaiting to be appealed to, come forward and offer their subscriptions of money, their labor and their iron, in the prosecution of the great work. It is to be hoped that the directors of the Pacific railroad will depute their president to attend the great Fair, and make use of its opportunities for promoting the interests of the road.

I am happy to say that Mr. Kirkwood, the chief engineer of the Pacific railroad, has promised a map such as I have described, with a report of surveys when completed, for use at the London Exhibition. Maps and drawings, though excluded by rule, from the exhibition as works of art, may possibly be admitted in illustration of the locality and extent of minerals, which are legitimate articles of show and competition.

The local committee of this State have promptly done their part, and it remains for those intending to be exhibitors to act. No time can be lost, for all articles for exhibition must be in London by the *first day of March*, 1851. They should, therefore, be in New York very early in January. Every article must be submitted to the local committee of St. Louis, of which Mr. Thomas Allen is chairman, otherwise it will not be received into the exhibition. This committee will direct the articles

to the proper persons in London. Let us hope that action will be prompt throughout the State, and that the people of Missouri will show forth their State as it can be shown, an empire in dimensions, rich beyond compare in the endowments of nature, and reaching forward by inevitable destiny to a future of unparalleled magnificence.

My apology for addressing you this communication, if apology be needed for betraying a deep interest in the high rank of Missouri at the World's Fair—will be found in this: that having determined to attend the London Exhibition, and having been requested to act as agent by all those exhibitors, whom I know to be certainly intending to be represented, I have diligently studied how I might best advance their interests; and in so doing, the subject has grown upon my mind until I have been led to believe we could serve the State at large by securing a full show of its native wealth in London. To accomplish this object, nothing seemed better calculated than to point out clearly how advantages to the State might be derived. I have tried to do that in the present communication, and I hope the endeavor will meet with approbation and success.

A. S. MITCHELL.

St. Louis, Nov. 18, 1850.

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In connection with the foregoing article, we publish a circular issued by the Central Committee of the United States, on the Industrial Exhibition in London, in May, 1851; and, also, the circular of the Committee for the State of Missouri.

The natural wealth of Missouri—its soils and minerals—as also the advantages of its geographical position, have never been fully appreciated either at home or abroad. The great Industrial Exhibition of 1851 will afford an opportunity of making known its resources to the intelligent minds of all Europe; and nothing should be left undone, on our part, to improve the occasion.

We are much gratified to learn that the accomplished author of the foregoing communication has resolved to be present at this great Exhibition as the representative of Missouri; for we are persuaded that the interests of our citizens could not be confided to one more zealous or capable of representing them. But no one individual can do justice to the varied interests of Missouri upon such an occasion. The State should be represented by at least a dozen of her most intelligent citizens—each department of industry should have its respective representative: and more than one individual capable of describing the geology and minerals of the State, should be present; for it will be impossible for one to do justice to this department. This may be regarded as the great

interest of Missouri: for as rich as she is in soil, she is yet more rich in minerals; and with a view to the development of this great source of wealth, it would, in our opinion, be sound policy on the part of her General Assembly, to appoint several scientific individuals as delegates; and also, make a reasonable appropriation to defray their expenses. We have a number of scientific gentlemen in the State who have devoted much time to the study of its minerals; but it would be unreasonable to expect them to devote their time and means in the public service without remuneration. They should not expect to make money by their employment; but they should be supplied with means that would enable them to gain access to the society of the learned men of other countries, without drawing upon their own resources. Editors.

"Washington, September 16, 1850.

"The Central Committee of the United States on the Industrial Exhibition to be held in London in May, 1851, beg leave to invite the attention of the Governors of the several States, of the local committees by them appointed, and of their fellow citizens generally, to the interesting subjects involved in this great concourse of the industry of nations, and to the peculiar aspects under which it addresses itself to the skilful and industrious of all classes in the United States.

This committee cannot but view this great exposition of human industry and productive skill, as one in which every nation on the globe has a direct and positive concern. Its results and its history, will go down to future generations, marking the actual state of arts and civilization in the middle of the nineteenth century. It will stand as at once an evidence and index of the progress which the humanizing arts of peace have made, and are now making in every Empire and Republic, Kingdom, Principality, and Province of the world.

The productions of American industry, which will be entitled to places in the Exhibition, are not limited to articles of manufacturing, mechanical, or any other single department of labor or of skill. The farm, the garden and the dairy, the forest and the mine, the factory and the workshop, the labaratory and the studio, will all be entitled to their respective positions —and it is earnestly hoped that no considerations will be allowed to prevent a full and honorable representation of every department of our natural resources, ingenuity, and industry.

To convey some impression of the number and variety of objects which America is capable of furnishing to the Exhibition, we may be permitted to enumerate a *few* of the prominent classes.

Among animal substances, it is believed that samples of beef, pork, hams, butter and cheese, wool and hair, feathers, down

and fur, lard and lard oil, stearine candles, honey and wax, spermaceti, skins, hides and leather, with articles manufactured from the same, may all be with advantage sent from the United States. Many of our dealers in provisions can now demonstrate that they understand how to cater for the most refined taste, as well in the style of putting up, as in the intrinsic qualities of their articles.

Among vegetable productions we shall not forget to send samples of wheat, flour, Indian corn, cotton, rice, tobacco, hemp and cordage, the starch of wheat, of potatoes, and especially of Indian corn; sugars of both cane and maple, raw and refined; timber, and articles manufactured therefrom, especially when made in large quantities and by machinery. By taking longitudinal and transverse slices or sections one or two inches in thickness from the trunks of trees, we may at little expense send the most striking proofs of our forest riches.—The sycamore and whitewood of Kentucky, the cypress of Mississippi and Louisiana, the live oak of Florida, the pine of Carolina, Maine, Minnesota, and Oregon, the oak, hickory, cherry, and black walnut of numerous States, the cedar and locust so famed for resisting decay, the hickory so tough and durable, the ash so light and yet so elastic, the bass wood, adapted for coach and car bodies, the birds-eye maple for ornamental furniture, with multitudes of others, may by this means be displayed with surfaces smooth or rough, varnished or unvarnished, and form a novel and striking feature of the exhibition. Will not some of our enterprising lumbermen take this great department in hand? In making cross sections of trees the bark should be carefully retained when practicable.

Among mineral substances which ought certainly to appear at the exhibition, are iron ores in all their varieties, from that of the Iron Mountain of Missouri to the rich veins of Georgia, Carolina, Virginia, Pennsylvania, New York, Vermont, New Hampshire, Maine, and numerous other States. The cobalt and lead of Missouri, Iowa, and Wisconsin, the chrome of Maryland, the zinc oxides of New Jersey and Missouri, the plumbago of North Carolina and of Pennsylvania, are a few of the coloring materials which ought to attract notice and win approbation. Stones used for building and other useful and ornamental purposes, should not be omitted, particularly such as excel in firmness, fineness of texture, purity, durability, and a susceptibility of high polish.

The gold and mercury of California, the silver of North Carolina, the copper of Michigan, the manufactured iron of many States, will evince our abundance in both the useful and the precious metals; and among articles manufactured from metals, we may send numerous varieties of cutlery, edge tools, surgical instruments, augers, scythes, axes, drawing knives,

hoes, shovels, butt hinges, door springs, sash and shutter fasteners, locks and latches, rifles, revolvers, bowie knives, gold pens, ever pointed pencils, clocks, chronometers, astronomical and other telegraphs.

We must have ploughs and cultivators, reaping, cornshelling, thrashing and winnowing machines. Nor must we forget to show how we save labor and diminish toilsome drudgery, by our card making machines, our screw machines, pin machines, hook and eye machines, nail and spike machines, and percussion cap machines, as well as by our cotton gins, our dredging machines, our quadruple printing presses, our brick machines, and our leaden pipe and leaden bullet machinery.

We need not fear to show samples of iron castings in hollow ware, of sheet, bar or railroad iron, of stoves, furnaces for house-heating, or ranges for cooking with anthracite, bituminous coal, or other fuel. Even in gilded, bronzed, and other ornamental work in metals, in chased and burnished silver ware, we have workmen who may satisfy the most fastidious European taste. If not too urgently engaged in filling orders at home, it is earnestly hoped that our manufacturers, of mathematical, philosophical and optical instruments will put before the discriminating eyes at London, a few specimens of their handiwork.

In connection with our metallurgic industry, we must not forget the mineral fuel by the aid of which it is prosecuted.—Our numerous varieties of anthracite, semi-bituminous, highly bituminous and cannel coals, must be made to prove how far the markets of the world as well as our own manufactures, navigation, and locomotion, can be supplied from the coal mines of the United States.

Machinery for working in wood, as shoe-last and gun-stock machines, bucket machines, sash and blind machines, box and match machines, with numerous forms of sawing, planing, matching and stave-dressing machines, would evince the fertility of invention among our workers in this class of substances.

Among textile fibrous manufactures we shall be able to offer cotton goods, plain and figured in great variety, together with cordage and canvass of the same material, as well as of American hemp. Among the woolen and mixed goods, woven wholly by power looms of American invention, we shall be expected to send Brussels carpets, ingrain and tapestry carpets, of various patterns.

In reference to our maritime architecture and nautical skill, in general, with all the details of equipment, perhaps no better evidence could be offered than would be given by freighting some suitable public vessel, with American contributions to the Exhibition, for the purpose of conveying them to England,

and this is perhaps the only way in which the Government, as such, could give effective aid to the objects of our present undertaking.

To the foregoing very brief sketch of a few objects to which attention may be beneficially directed, we may add, that a due discrimination will no doubt be exercised, in respect to the classes of objects as well as the individual specimens which ought to be sent to the exhibition. It is for this reason, that this Central Committee has invoked, through the Governors of the several States, the aid of local committees, having direct cognizance of the merit of the articles proposed to be exhibited.

It is earnestly requested that all committees designated in the several States should enter with as little delay as possible on the discharge of their duties, that they should give to exhibitors all needed advice and information, as to the suitableness or unsuitableness of the articles, the proper quantity to be forwarded, the means of conveyance and the agencies either in this country or England, by which the proper care will be taken of their packages.

Where it is probable that all the four divisions of articles, viz: Raw Materials and Produce, Machinery, Manufactures, Sculpture and the Plastic Arts, will be brought forward for approval, the local committees would doubtless find it advantageous to divide themselves into sub-committees with a view to assign to each sub-committee one of these great departments, not precluding joint consultation on points of difficulty or of special importance.

It cannot be too earnestly impressed on the minds of all local committees, that to whatever class of the exhibition objects may pertain, they ought, in order to warrant their being sent forward, to possess the merit of either *novelty*, *variety*, or *high excellence*.

They ought to represent in some one or other of its departments, either our national industry and ingenuity, or the natural resources on which they are employed.

It will contribute much to the facility of forwarding goods to the exhibition to form depots in our principal seaports, as at New Orleans, Charleston, Baltimore, Philadelphia, New York and Boston, where the articles may be conveniently stored until the time of sending them to London. They should not be shipped so as to arrive before the first of January, 1851, and cannot be exhibited if received at London later than the first of March following. Every package must be entered on a suitable bill of lading, and be accompanied by a certificate from the central authority of the United States, attested by

the proper officer approving of the transmission of the object therein contained, to the care of the British Commissioners.

The form of a return for an exhibitor is hereunto annexed, in which the amount of space, vertical or horizontal, is to be set forth.

The accompanying letter under date of 5th of August, 1850, and the circular to which it relates, addressed by the Royal Commission to the various commissions abroad, to which are annexed the several proposals made by agents in the different ports of England, together with the "information for the use of foreign exhibitors," and the article "on the prizes and juries," which bears date July 29th, 1850, will give, it is believed, all needed information to American exhibitors, in respect to the conditions and circumstances of the exhibition.

In conveying articles from the place of production to that of embarcation for England, it is hoped that steamboat and railroad companies in the United States will treat American exhibitors with the same liberality which has been manifested abroad, where goods destined to the exhibition are conveyed free of charge.

CIRCULAR OF THE COMMITTEE FOR THE STATE OF MISSOURI.

The undersigned, having been appointed by the Governor, a committee for the State of Missouri, to correspond with the Central Authority, and to select from such articles as may be submitted by the citizens of this State, those most suitable for the exhibition, are prepared to give any advice or information which the Central Authority have enabled them to impart.

The exhibition of the works of industry of all nations, to be held in London, is announced by the Royal Commissioners, to be opened on the 1st day of May, 1851.

Articles intended for the exhibition will be received only between the first of January and the first of March next, must be forwarded at the owners' expense and risk, and must first receive the sanction of the local committee, and, through them, of the Central Authority at Washington City. The owner or agent is permitted, if he wishes, to go forward with his goods himself, and attend to their being fitted up, &c. There is, however, an American agent appointed at Liverpool, who will receive the goods, and attend to the proper disposition of them, and it is announced that a national vessel will be detailed to

transport the articles intended for exhibition, to London.—There are also English houses at Liverpool and London, that have liberally offered to receive and forward the goods intended for the exhibition, without any charge for lighterage, wharfage, or reloading. The articles, it is stated, will be admitted free of duty, if re-exported; but, if sold in England, will be subject to duty, for which bonds will have to be given on entry. But every facility is provided for getting the goods to the house of exhibition, with as little expense as possible, and without the usual delays and formalities.

For general information, we state that the plan of the exhibition comprehends nearly every description of the results of human industry, from the raw material to the most perfect achievement of mechanical skill. The articles are to be classified, but the productions of different nations are permitted to maintain their identity. A very general division of the objects of exhibition is indicated by the following sections, which have numerous sub-divisions:

Sec. 1. Raw materials and produce — illustrative of the natural productions on which human industry is employed.

Sec. 2. Machinery for agricultural, manufacturing, engineering, and other purposes, and mechanical inventions — illustrative of the agents which human ingenuity brings to bear upon the products of nature.

Sec. 3. Manufactures—illustrative of the result produced by the operations of human industry upon natural produce.

Sec. 4. Sculpture, models, and the plastic art generally—illustrative of the taste and skill displayed in such applications of human industry.

The objects which seem to be excluded, are spirits, wines, and fermented liquors, all highly inflammable articles, all live stock, and oil paintings, and water-color paintings, drawings and engravings.

It is understood that some $100,000, or more, are to be distributed in premiums.

It is for those interested to determine whether Missouri shall be represented in this grand convention of the industry of the globe. It is for them to say whether the State is to be benefitted by an exposition to the world of the nature of the great resources of Missouri. The Central Authority of this country, do us the honor publicly to refer to the iron, the cobalt, the lead, and other minerals of this State, as though specimens of them would be desirable, and as though they would be expected to occupy an appropriate place in this exhibition of the nations. Specimens of our great agricultural staples, wheat,

Indian corn, hemp, tobacco, &c., might well be included, and selections might be made of them which would challenge attention, if they should not maintain a forward rank in the race of competition.

We will only add, that we are ready to discharge, and very cheerfully, the duty imposed upon us, by virtue of our appointment as a local committee.

Any citizens of Missouri intending to exhibit, should forward their names, with specifications of the objects, as soon as practicable. The committee cannot promise that any article would be received which should leave this city after the first of February. Communications may be addressed to the chairman, or he may be seen personally at his office, corner of Olive and Main streets, at 12, M., each day.

THOMAS ALLEN, Chairman.

HUDSON E. BRIDGE,
WILLIAM PALM,
O. D. FILLEY,
} Committee.

The other two members of the committee, not present, are SAMUEL GATY and ALFRED VINTON.

PRIZES AND JURIES.

Her Majesty's Commissioners have had under their consideration the prizes to be awarded to exhibitors, and have resolved to take immediate steps for having (three) medals struck of various sizes and different designs, it being their opinion that this is the form in which it will, generally speaking, be most desirable that the rewards should be distributed. They have decided to select bronze for the material in which the medals are to be executed, considering that metal to be better calculated than any other, for the development of superior skill and ingenuity in the medallic art, and at the same time the most likely to constitute a lasting memorial to the Exhibition.

With regard to the mode in which the prizes are to be awarded, the commissioners think it inexpedient to establish beforehand rules so precise as to fetter the discretion of the Juries upon which the task will ultimately devolve. It will be sufficient for the present to indicate the general principles to which it will probably be advisable to conform in the award of prizes for successful competition in the several departments of the Exhibition.

In the department of Raw Materials and Produce, for instance, prizes will be awarded upon a consideration of the value and importance of the article, and the superior excellence of the particular specimens exhibited; and in the case of prepared materials, coming under this head of the exhibition, the Juries will take into account the novelty and importance of the prepared product, and the superior skill and ingenuity manifested in the process of preparation.

In the department of Machinery, the prizes will be given with reference to novelty in the invention, superiority in the execution, increased efficiency, or increased economy, in the use of the article exhibited. The importance, in a social or other point of view, of the purposes to which the article is to be applied, will also be taken into consideration, as will also the amount of the difficulties overcome in bringing the invention to perfection.

In the department of Manufactures, those articles will be rewarded which fulfil in the highest degree, the conditions specified in the sectional list already published, viz: Increased usefulness, such as permanency in dyes, improved forms and arrangements in articles of utility, &c.; superior quality, or superior skill in workmanship; new use of known materials; use of new materials; new combinations of materials, as in metals and pottery; beauty of design in form, or colour, or both, with reference to utility; cheapness, relative to excellence of production.

In the department of Sculpture, Models, and the Plastic Art, the rewards will have reference to the beauty and originality of the specimens exhibited, to improvements in the processes of production, to the application of art to manufactures, and, in the case of models, to the interest attaching to the subject they represent.

These general indications are sufficient to show that it is the wish of the Commissioners, as far as possible to reward all articles in any department of the Exhibition which may appear to competent judges to possess any decided superiority, of whatever nature that superiority may be. It is the intention of the Commissioners to reward excellence in whatever form it is presented, and not to give inducements to the distinctions of a merely individual competition. Although the Commissioners have determined on having three medals of different sizes and designs, they do not propose to instruct the Juries to award them as first, second, and third in degree for the same class of subjects. They do not wish to trammel the Juries by any precise limitation; but they consider that the Juries will rather view the three kinds of medals as a means of appreciating and distinguishing the respective characters of the subjects to be rewarded, and not of making distinctive marks in

the same class of articles exhibited. They fully recognize that excellence in production is not only to be looked for in high-priced goods, in which much cost of labour and skill has been employed, but they encourage the exhibition of low priced fabrics, when combining quality with lowness of price, or with novelty of production. They can readily conceive that Juries will be justified in giving the same class medal to the cheapest calico print, made for the Brazilian or other South American market, as they would to the finest piece of *mousseline de soie* or *mousseline de laine*, if each possessed excellence of its own kind.

In selecting the Juries who are ultimately to guide them in making their award, the Commissioners will take the greatest pains to secure the services of men of known ability to form a judgment, above the suspicion of either national or individual partiality (for which purpose they will be composed partly of Englishmen, and partly of foreigners;) and who may be expected to recognize and appreciate merit wherever it may be found, and in whatever way it may show itself.

No competitor for a prize in any section will be allowed to act upon a Jury to award the prizes in that species of article in which he is a competitor.

The names of persons selected to act on these Juries will be published when decided upon.

All persons, whether being designers or inventors, the manufacturers or the proprietors of articles, will be allowed to exhibit; but they must state the character in which they do so. They may also state the names of all or any of the parties who have aided in the production. In awarding the prizes, however, it will be for the Juries to consider, in each individual case, how far the various elements of merit should be recognized, and to decide whether the prize should be handed to the exhibitor, or to one or more of those who have aided in the production.

Lastly, the Commissioners, in announcing their intention of giving medal prizes, do not propose altogether to exclude pecuniary grants, either as prize of successful competition, or as awards under special circumstances, accompanying, and in addition to the honorary distinction of the medal. There may be cases in which, on account of the condition of life of the successful competitor (as, for instance, in the case of workmen,) the grant of a sum of money may be the most appropriate reward of superior excellence; and there may be other cases of a special and exceptional nature, in which, from a consideration of the expense incurred in the preparation or transmission of a particular article entitled to a prize, combined with a due regard to the condition and pecuniary circumstances of the party exhibiting, a special grant may with

propriety be added to the honorary distinction. The Commissioners are not prepared, for the present at least, to establish any regulations on these heads. They consider it probable that a wide discretion must be left to the Juries to be hereafter appointed in respect to the award of money prizes, or the grant of money in aid of honorary distinctions; it being understood that such discretion is to be exercised under the superintendence and control of the Commission.

Articles marked "Not for competition" cannot be admitted.

J. SCOTT RUSSELL,
STAFFORD H. NORTHCOTE.

PALACE OF WESTMINSTER, July 29, 1850.

A NEW AND BEAUTIFUL WARE.

"We were shown on Saturday a new ware, which for beauty of finish and durability, is not surpassed by any thing of the kind within our knowledge, imported or domestic. It comes from the Bennington — Vermont — Flint Enamel Ware Works, and is composed entirely of mineral substances, without a particle of clay. It is thus rendered very strong, and is fire proof—two very important qualities with housekeepers. Its beauty of finish and smoothness of surface is fully equal to the best China or porcelain yet known. In addition to all these essential qualities, strength, durability and beauty, it is said to be afforded at lower prices than similar articles of clay ware. Its uses are not confined to the usual crockery ware, but the inventors make from it door knobs, daguerreotype frames, fancy brackets; letters for sign boards, figures for numbering, and almost every thing of the sort. The right to manufacture it has been patented, and the ware will probably soon be brought into the market.

COMMERCIAL STATISTICS.

TRADE AND COMMERCE OF NEW ORLEANS.

We copy the following Tabular Statement of the trade and commerce of New Orleans, for the past and previous years, from the "Merchant's Magazine." These statistics appear to have been derived from the "New Orleans Price Current, Commercial Intelligencer, and Merchant's Transcript," of September 2d, 1850.

A table showing the receipts of the principal articles at New Orleans from the interior, during the year ending 31st August, 1850, with their estimated average and total value.

Articles.	Amount.	Average.	Value.
Apples, bbls.	37,244	$3 00	$111,732
Bacon, assorted, hhds. & casks,	38,336	40 00	1,533,440
" " boxes	28,941	20 00	578,820
" hams, hhds. and tres.	19,335	45 00	870,075
" in bulk, lbs.	209,045	05	10,452
Bagging, pieces	58,321	14 00	816,494
Bale rope, coils	86,104	8 00	688,832
Beans, bbls.	9,307	3 00	27,921
Butter, kegs and firkins	51,058	4 00	204,232
" barrels	1,772	20 00	35,440
Beeswax	367	40 00	14,680
Beef	49,473	9 00	445,257
" trcs.	15,798	15 00	236,970
" dried, lbs.	48,219	06	2,893
Buffalo robes, packs	358	65 00	23,270
Cotton, bales	837,723	50 00	41,886,150
Corn meal, bbls.	5,187	2 75	14,264
" in ear	42,719	90	38,447
" shelled, sacks	1,114,897	1 40	1,560,855
Cheese, boxes	62,809	3 00	188,427
Candles	55,300	6 00	331,836
Cider, bbls.	903	3 00	2,709
Coal, western	600,000	45	270,000
Dried apples and peaches	2,999	3,00	8,997
Feathers, bags	5,900	30 00	177,000
Flaxseed, trcs.	217	10 00	2,170
Flour, bbls.	591,986	5 75	3,403,919
Furs, hhds, bundles and boxes	444	.....	400,000
Hemp, bales	34,792	20 00	695,840
Hides, No.	43,542	1 25	54,427

Articles.	Amount.	Average.	Value.
Hay, bales	56,258	4 00	225,032
Iron, pig, tons	20	25 00	500
Lard, hhds	215	60 00	12,900
" bbls. and tcs.	228,019	18 00	4,104,342
" kegs	302,366	3 00	907,098
Leather, bundles	5,233	25 00	130,825
Lime, western, bbls.	32,060	90	28,854
Lead, pigs	415,400	3 00	1,246,200
" bar, kegs and boxes	631	18 00	11,358
Molasses, esti'd crop, galls.	12,000,000	20	2,400,000
Oats, bbls. and sacks	325,795	1 00	325,795
Onions, bbls.	13,024	2 00	26,048
Oil, linseed	1,098	30 00	32,940
" castor	2,091	70 00	146,370
" lard	14,712	24 00	353,088
Potatoes	166,003	2 00	332,006
Pork, tcs. and boxes	543,694	9 50	5,165,093
" boxes	15,695	20 00	313,900
" hhds.	13,968	40 00	558,720
" in bulk, lbs.	15,862,431	03 3-4	594,841
Porter and ale, bbls	804	8 00	6,132
Packing yarn, reels	4,131	6 00	24,786
Skins, deer, packs	1,375	25 00	34,375
" bear	37	15 00	555
Shot, kegs	4,435	20 00	88,700
Soap, boxes	9,930	3 00	29,790
Staves, M.	6,000	35 00	210,000
Sugar, (estimated crop) hhds.	247,923	50 00	12,396,150
Spanish moss, bales	4,337	6 00	26,022
Tallow, bbls	4,862	20 00	97,240
Tobacco, leaf, hhds.	79,404	100 00	7,940,400
" strips	9,400	140 00	1,316,000
" stems	3,000	20 00	60,000
" chewing, kegs & boxes	2,021	20 00	40,420
Twine, bundles and boxes	2,118	12 00	25,416
Vinegar, bbls	180	5 00	900
Whisky	117,753	9 00	1,059,777
Window glass, boxes	4,887	5 00	24,435
Wheat, bbls. and sacks	57,508	2 00	115,016
Other various articles, estimated at			5,000,000
Total value			$96,897,873
" 1848-9			81,989,692
" 1847-8			79,779,151

Exports of Cotton and Tobacco from New Orleans for the year, commencing on the 1st of September, 1849, and ending on the 31st of August, 1850.

Exported to	Cotton, bales.	Tobacco, hhds.	Exported to	Cotton, bales.	Tobacco, hhds.
Liverpool	378,155	6,662	Spain and Gibraltar	46,296	4,726
London	1,367	6,723	Havana, Mexico, &c	2,292	....
Glasgow and Greenock	10,857	....	Genoa, Trieste, &c	36,362	5,874
Cowes, Falmouth, &c.	3,741	3,435	China	....	....
Cork, Belfast, &c	3,069	....	Other foreign ports	6,496	1,375
Havre	112,159	718	New York	84,891	11,305
Mordeaux	1,006	579	Boston	109,069	1,169
Aarseillcs	3,618	759	Providence, R. I.	....	....
Nantz, Cette & Rouen	630	....	Philadelphia	15,616	1,294
Bmsterdam	....	....	B ltimore	4,017	277
Rotterdam and Ghent	572	824	Portsmouth	....	....
Bremen	1,801	7,719	Other coastwise ports	230	337
Antwerp, &c	11,994	2,244	Western States	....	....
Hamburg	112	573			
Gottenburg	5,021	1,365	Total	838,591	57,655

Total exports of cotton from New Orleans for ten years, commencing 1st September and ending 31st of August in each year.

	1849-50.	1848-9.	1847-8.	1846-7.	1845-6.
Great Britain	397,189	645,018	654,083	385,268	562,220
France	117,413	154,647	140,988	95,719	149,528
North of Europe	25,196	61,062	50,986	26,297	28,841
South of Europe and China	84,950	100,765	104,751	57,623	84,086
Coastwise	213,843	205,811	252,039	159,501	220,182
Total	838,091	1,167,303	1,201,897	724,508	1,064,857

	1844-5.	1843-4.	1842-3.	1841-2.	1840-1.
Great Britain	585,888	527,675	679,436	421,456	430,310
France	125,020	119,960	160,875	183,272	183,931
South of Europe	33,035	17,907	50,882	21,207	9,836
North of Europe and China	92,458	52,855	43,543	23,506	36,364
Coastwise	148,215	176,968	134,132	99,832	160,847
Total	984,616	895,375	1,068,870	749,267	821,288

Total Exports of Tobacco from New Orleans for ten years, commencing 1st of September, and ending 31st of August in each year.

	1849-50.	1848-9.	1847-8.	1846-7	1845-6.
Great Britain	16,820	14,017	19,867	9,695	24,505
France	2,956	10,640	4,954	3,497	4,288
North of Europe	12,725	7,039	10,475	8,018	13,801
South of Europe and China	11,975	10,347	12,079	17,849	12,516
Coastwise	14,379	10,853	12,989	11,317	7,435
Total	57,955	52,896	60,364	50,376	67,045

	1844-5.	1843-4	1842-3.	1841-2.	1840-1.
Great Britain	12,553	22,523	27,437	20,969	20,665
France	9,013	11,104	11,645	6,974	6,812
North of Europe	19,051	20,175	21,618	20,252	8,040
South of Europe and China	11,029	14,349	7,836	9,053	5,645
Coastwise	17,033	13,098	21,455	10,810	13,505
Total	68,679	81,249	89,991	68,058	54,667

Exports of Sugar and Molasses from New Orleans for the year, (up the river excepted,) from 1st of September, 1849, to 31st of August, 1850.

Whither exported.	Sugar. Hhds.	Sugar. Bbls.	Molasses. Hhds.	Molasses. Bbls.
New York	42,523	2,229	2,078	42,776
Philadelphia	28,344	3,074	....	14,636
Charleston, South Carolina	5,014	683	....	10,531
Savannah	1,981	300	82	4,279
Providence and Bristol, Rhode Island	....	....	247	37
Boston	3,929	961	....	2,792
Baltimore	8,101	2,225	....	13,432
Norfolk, Richmond and Petersburg, Va.	6,600	882	30	6,134
Alexandria, District of Columbia	649	....	....	600
Mobile	2,876	1,526	....	8,850
Apalachiola and Pensacola	1,830	460	....	5,370
Other ports	873	1,602	305	3,237
Total	92,720	13,948	2,742	112,674

Exports of flour, pork, bacon, lard, beef, lead, whisky and corn from New Orleans, for the year, from 1st September, 1849, to 31st August, 1850.

Ports.	Flour, bbls.	Pork, bbls.	Bacon, hhds.	Lard, kegs.	Beef, bbls.	Lead, pigs.	Whisky, bbls.	Corn, sacks.
New York	8,625	202,708	28,031	372,451	8,464	259,536	1,104	9,327
Boston	65,694	157,390	8,142	306,689	17,003	92,067	698	41,568
Philadelphia	500	17,188	5,256	86,037	....	56,766	171	....
Baltimore	202	36,036	4,895	72,290	3,391	....	1,279	....
Charlesron	2,034	4,059	4,246	2,098	229	163	8,057	1,501
Other Coastwise ports	107,264	20,395	10,423	24,975	5,151	164	33,280	66,023
Cuba	866	1,260	1,259	108,534	10	....	....	....
Other foreign ports	27,065	33,213	2,577	586,732	21,654	1,451	306	338,648
Total	211,750	470,237	64,929	1,554,849	55,843	410,146	44,904	456,067

In the above, the exports to Mobile, &c., via the Pontchartrain railroad, and new canal, are included.

Monthly arrivals of ships, barks, brigs, schooners, and steamboats for two years, from 1st September to 31st August.

Months.	1849–50. Ships	Barks	Brigs	Schooners	Steamships	Total	Steamboats	1848–9. Ships	Barks	Brigs	Schooners	Steamships	Total	Steamboats
September	27	20	10	29	12	99	109	27	9	11	33	7	86	164
October	96	26	22	29	15	188	184	45	23	24	33	13	138	215
November	198	43	41	52	14	258	243	96	47	44	37	14	238	288
December	60	50	48	54	9	223	334	87	57	60	45	10	259	281
January	78	56	46	53	13	276	352	71	61	47	50	11	241	325
February	54	22	40	67	11	202	311	101	62	39	39	10	251	313
March	66	42	44	79	13	244	318	70	61	53	54	15	253	321
April	76	31	45	82	11	345	238	132	56	34	53	11	286	257
May	33	20	23	57	13	135	239	74	33	19	43	15	183	191
June	38	12	19	51	10	130	171	40	22	25	31	8	126	153
July	10	14	17	40	13	94	152	12	19	10	21	12	74	135
August	31	14	7	43	13	98	133	2	12	9	18	10	51	130
Total	654	363	362	666	147	2,192	2,784	757	462	375	456	2,186	2,873	

Prices of flour, corn, sugar, molasses, middling to fair cotton, at New Orleans on the 1st of each month from September, 1849, to August, 1850.

	Cotton. cents.	Sugar. cents.	Molasses. cents.	Flour. dollars.	Corn. cents.
September	9 1-2 a 11 1-2	3 a 5 1-4	10 a 20	4 1-2 a 5 3-4	35 a 46
October	9 3-4 a 12	4 a 6 1-4	10 a 20	5 a 5 5-8	42 a 48
November	9 7-8 a 11	3 a 6	24 a 24 1-2	4 3-4 a 5 1-4	50 a 55
December	10 1-8 a 11 1-4	3 a 6	20 1-2 a 30 3-4	5 a 5 1-2	46 a 52
January	10 1-4 a 11 1-2	2 1-2 a 5	17 a 19 1-2	5 a 5 5-8	... a 47
February	11 1-8 a 12 3-4	2 1-2 a 5	15 a 20 1-4	5 1-8 a 5 3-4	45 a 50
March	10 7-8 a 12 1-4	2 1-2 a 5	12 a 21 1-2	5 1-8 a 6	50 a 57
April	10 5-8 a 12	2 1-2 a 5	10 a 21	5 5-8 a 6 3-4	50 a 56
May	11 5-8 a 13	2 1-2 a 5	10 a 23	5 3-8 a 6 3-4	76 a 83
June	11 1-2 a 13 1-4	3 3-4 a 5 3-4	21 a 27	6 3-8 a 7 7-8	64 a 70
July	11 3-4 a 13 1-2	4 a 6	25 a 33	5 1-2 a 7 1-4	75 a 85
August	12 1-4 a 13 1-2	4 1-4 a 6 3-4	20 a 33	4 a 6 3-4	75 a 85

Comparative prices of mess and prime pork, on 1st of each month for two years.

	1849-50.		1848-9.	
	Mess.	Prime.	Mess.	Prime.
September	$9 1-4 a 9 1-2	$8 1-4 a $8 3-8	$11 1-4 a $11 1-2	$9 a ..
October	9 3-4 a 10	8 3-8 a 6 1-2	12 1-4 a ...	10 1-4 a ..
November	9 3-8 a 9 1-2	8 1-4 a 8 1-2	10 1-4 a 10 1-2	9 3-4 a $10
December	10 1-2 a 11	8 1-2 a 8 3-4	10 a 10 1-2	9 a 9 1-2
January	9 1-4 a 9 1-2	8 a ...	11 a 11 1-4	9 1-2 a 9 5-8
February	9 1-2 a 10	7 3-8 a 7 5-8	10 3-4 a 11 1-4	9 7-8 a 10
March	9 3-8 a 9 5-8	7 3-8 a 7 1-2	10 1-4 a 10 3-8	9 a 9 1-2
April	9 1-2 a 9 3-4	7 3-8 a 7 1-2	10 a 10 1 8	9 a ...
May	9 3-4 a 10	7 3-4 a 8	9 5-8 a 9 7-8	8 3-4 a ...
June	10 1-4 a 10 1-2	8 1-4 a 8 1-2	9 3-8 a 9 1-2	8 1-8 a 8 1-4
July	... a 12	9 1-2 a ..	10 1-2 a 10 3-4	8 1-2 a 8 3-4
August	11 1-2 a 11 3-4	... a 9 3-4	9 3-4 a 10 1-4	8 1-8 a 8 1-4

From the Commercial Review.

ANNUAL COTTON STATEMENT — CROP, 1849–50.

Exports to Foreign Ports from United States, from September 1, 1849, to August 31, 1850.

From	To Great Britain.	To France.	To North of Europe.	Other For'n Ports.	Total.
New Orleans, bales	397,189	117,413	25,196	84,950	624,748
Mobile	162,219	39,965	.....	11,977	214,164
Florida	39,594	....	7,165	2,175	48,934
Texas	513	....	....	....	513
Georgia	137,185	14,110	1,848	....	153,143
South Carolina	165,623	33,062	8,944	9,922	227,571
North Carolina	....	....	....	....	....
Virginia	....	....	133	50	183
Baltimore	202	....	230	....	432
Philadelphia	3,454	....	....	599	4,053
New York	200,113	85,054	27,726	1,907	314,800
Boston	670	....	914	21	16,05
Grand total	1,106,771	289,627	72,156	121,601	1,590,155
Total last year	1,537,901	368,259	165,458	156,226	2,227,844
Decrease	431,130	78,632	93,302	34,625	637,689

GROWTH.

Crop of 1823—4, bales..509,158	1832—3, bales..1,070,438	1841—2, bales..1,683,574
1824—5, ..569,249	1833—4, ..1,205,394	1842—3, ..2,378,875
1825—6, ..720,027	1834—5, ..1,254,328	1843—4, ..2,030,409
1826—7, ..957,281	1835—6, ..1,360,725	1844—5, ..2,394,503
1827—8, ..720,593	1836—7, ..1,422,930	1845—6, ..2,100,527
1828—9, ..857,744	1837—8, ..1,801,497	1846—7, ..1,778,651
1829—30, ..976,845	1838—9, ..1,360,432	1847—8, ..2,347,634
1839—1, ..1,038,848	1839—40, ..2,177,835	1848—9, ..2,728,596
1821—2, ..967,477	1840—1, ..1,634,745	1849—50, ..2,090,706

CONSUMPTION.

Total crop of the United States as above stated.....bales			2,096,700
Add			
Stocks on hand at the commencement of the year, 1st September, 1849:			
In the southern ports.....		72,468	
In the northern ports.....		82,285	
			154,753
Makes a supply of.....			2,251,453
Deduct therefrom:			
The export to foreign ports.....	1,590,155		
Less foreign included.....	1,341		
		1,588,814	
Stocks on hand, 1st September, 1850:			
In the southern ports.....	91,754		
In the northern ports.....	76,176		
		167 930	
Burnt at New York and Charleston.....		6,846	
			1,763,690
Taken for home use.....bales			487,769

QUANTITY CONSUMED BY AND IN THE HANDS OF HOME MANUFACTURES.

1849 50..bales	487,769	1841—2,..bales	267,850	1833—4..bales	196,413
1848—9.....	518 039	1840—1,.....	297 288	1832—3.....	194 412
1847—8.....	531 772	1839—40.....	295,193	1831—5.....	173,800
1846—7.....	427,967	1838—9,.....	276,018	1830—1.....	182,142
1845—6.....	422 597	1837—8,.....	246,063	1829 30.....	126,512
1844—5.....	389 006	1836—7,.....	222,540	1828—9.....	118,853
1843—4.....	346,744	1835—6,.....	236,733	1827—8.....	120,593
1842—3.....	325,129	1834—5,.....	216,868	1826—7.....	149,516

In our last annual statement, the estimate of cotton taken for consumption for the year ending September 1, 1849, in the States south and west of Virginia, was probably over-estimated; the following for the past year is believed to be very nearly correct. The number of mills has increased since that time and are still increasing, but the quantity consumed as far as we can learn, is owing to high prices, &c., less than the year previous. The following estimate is from a judicious and careful observer at the south, of the quantity so consumed and not included in the receipts. Thus, in—

	Mills.	Spindles.	Quantity consumed.
North Carolina.....	30	.....	20,000 bales.
South Carolina.....,	16	36,500	15,000 "
Georgia.....	36	51 150	27,000 "
Alabama.....	11	16 960	6,000 "
Tennessee.....	30	36.000	12,000 "
On the Ohio, &c.....	30	102,220	27,500 "
Total to September 1, 1850.....			107,500 bales.
" " 1840.....			110,000 "
" " 1848.....			75,000 "

To which should be added the stocks in the interior towns, the quantity burnt in the interior, and that lost on its way to market; these, added to the crop as given above, received at the shipping ports, will show very nearly the amount raised in the United States the past season; say, in round numbers, 2,212,000 bales.

The quantity of new cotton received at the shipping ports up to the 1st instant, amounted to about 955 bales, against about 575 bales last year.

The shipments given in this statement from Texas, are those by SEA only; a considerable portion of the crop of that state finds its way to market via Red River, and is included in the receipts at New Orleans. [New York Shipping List:

JOURNAL OF MANUFACTURES AND IMPROVEMENTS.

PROGRESS OF MANUFACTURES IN ST. LOUIS—UNION FOUNDRY.

Whilst on a visit to the southern part of the city, a few days ago, we called at the Union Foundry, on Third street, between Hazel and Lombard; and finding the operations of the establishment on a scale far more extensive than we imagined them to be, we solicited the proprietors, Messrs. PALM & ROBERTSON, to furnish us with such facts, touching their works, as would enable our readers to appreciate their extent and importance to the community.

The machinery is propelled by a high pressure steam engine, of about 24 horse power; and the operations of the establishment embrace the manufacture of almost every article that is usually made at a foundry and machine shop. Among the leading articles produced here are steam engines; railroad car wheels, and axles; hydraulic and screw presses; store fronts and columns; tools of various descriptions; waterpipes &c., &c.

The daily consumption of raw material is, of pig metal, from 16,000 to 18,000 lb.; of stone coal, about 70 bushels; of anthracite coal, about 1200 lbs.; of Pittsburgh coal, about 1,200 lbs. Besides these articles, there is consumed a large quantity of bar iron, steel, brass, copper, charcoal, oak wood &c., &c.

The number of hands employed is between 70 and 80; at wages ranging from $2 per week for the youngest apprentice, to fifteen dollars per week for a foreman.

Much the larger portion of the pig metal consumed at this establishment, is from the Pilot Knob Iron Works, Mo. This looks well; but we fear that many years will elapse before Missouri will supply the demand for iron in this market.

The manufacture of iron in all its varied forms, may now be regarded as the most extensive branch of industry in our city; and we should be under obligations to all those engaged in this pursuit if they would furnish us with such facts as would enable us to make up a complete account of it for the January number of the "Western Journrl."

INVENTION IN THE SUGAR MANUFACTURE

The "Sun" gives a description of a new invention for graining sugar, which has been purchased by Messrs. Howland & Woolsey, (the latter a well-known sugar manufacturer,) and is thus described:

"The sugar is taken in its black, dirty state, just as it comes from the planters' boilers, thrown into the machine, and in a twinkling the refuse stuff is separated from the mass, leaving the clean, white, sparkling sugar alone by itself, ready for family use. In *two minutes* the refining is completed, which, by the usual mode, required three weeks of time, the employment of many hands and the consumption of much fuel. In this new process no heat is required,

The invention is one of remarkable ingenuity and certain in its operations. The sugar to be refined is mixed with molasses until it is of a semi-fluid consistency. The mass is then placed within a revolving sieve, the wires of which are so fine as to retain the sugar but permitting the exit of the liquid parts. By means of steam power the tremendous velocity of two thousand revolutions in a minute is given to the sieve, and so great is the centrifugal force thus applied to the mixture within, that the molasses and impurities instantly fly off, leaving the sugar behind, purified, white, and, what seems singular, perfectly dry. The article thus produced is what is generally known as refined brown sugar. It resembles powdered loaf sugar, and needs but one more operation to convert it into the loaf. The entire machine occupies but little more space than a good-sized washtub."

The first of these machines ever produced on a practical scale in this country, has recently been constructed at the large machine works of our old friend Mr. G. B. Hartson, Nos. 58 & 60 Vesey street; it is of a capacity to refine 200 lbs. of sugar in two minutes.

The idea never would have struck us, that, by giving sugar syrup a rapid centrifugal motion, the moisture alone would be thrown off, and the grain crystalised and refined. We do not yet see how it can be purified by this operation. A machine for drying and depurating sugar by steam and centrifugal motion, is illustrated and described in No. 41 Vol. 5, Scientific American. Centrifugal motion and its virtues were first displayed in a revolving machine for drying cloth, (one was patented by Mr. Nelson Chaffee, of Connecticut, two years ago,) it has been applied to moulding metal pipe, and now it is applied to the manufacture of sugar.

ATLANTIC AND MISSISSIPPI RAILROAD.

We are informed by Wm. S. Wait, Esq., president of this company, that a survey of the route, commencing at the eastern terminus of the Terre Haute and Richmond railroad, on the Indiana State line, and terminating at Illinois-town, opposite to this city, will be completed in a few days, under the direction of W. H. Morrison, chief engineer. Mr. Wait has accompanied the engineer on the route, and has obtained the right of way from a great number of those through whose land the road has been located. He states that the people residing near the route, manifest the most lively interest in the work; and he appears quite sanguine that the legislature of Illinois will sanction and confirm the location of the road as made by the company.

Looking forward to the completion of this great enterprise, as we feel authorised to do, it is natural to enquire in what way and to what extent it will affect the city of St. Louis?—That the termination of this and other important lines of improvement opposite this city, will tend to strengthen and establish this as the great commercial point in the valley of the Mississippi, there can be little doubt; but, that it will also be the means of transferring a large portion of the business to the eastern bank of the Mississippi, is, in our opinion, quite certain.

Produce brought on the railroad, except that designed for consumption here, will not cross the river. It will be received, stored, and forwarded from Illinois-town as cheap as from St. Louis; and we cannot suppose that the owners will pay the charges of transporting their commodities across the river, when nothing could be gained by it. The advantages of a location on the east bank of the river, cannot escape the acute vision of the merchant; and, he will be found there ready to receive and forward the produce of the country, by the time the road is in a condition to bring it in. Nor is there any reason that his business should be limited by that of the railroad; for, stationed on one side of the St. Louis harbor, he comes in fair competition with the St. Louis merchant for the produce arriving on steamboats. Nay, more—when we reflect that a much larger amount of produce will arrive at Illinois-town than at St. Louis, by land carriage, and that rents, and perhaps taxes will be lower there than here, it must be admitted that the mercantile advantages are in favor of that place. Again, St. Louis must rely chiefly on the Illinois coal mines for fuel; and the low price of this article on the east side of the river, will operate as a strong inducement to the location there of all manufacturing establishments which require great mo-

tive power. Indeed the price of ground is now so high on the Missouri side, that manufacturers cannot afford to build in situations convenient to business; and this cause alone will, in time, transfer the larger establishments to the Illinois shore.

In view of these facts, we are persuaded that the construction of the Atlantic and Mississippi railroad will materially affect the value of real estate in St. Louis; it may not depreciate its present value, but it will prevent prices from advancing as they otherwise would.

We know that the opinion prevails that the depressed situation of the American bottom, will forever prevent the building of a city on it; and this would be the case under almost any other state of facts, than those which exist. Nearly every large city with whose history we are acquainted, has extended its limits by reclaiming land as difficult of improvement as the American bottom; and, indeed, the improvement of a considerable part of the city of St. Louis, will have cost as much when completed, as will an equal arrea in Illinois-town. Less than one-fifth of the present value of ground fronting on the St. Louis levee, will raise a levee on the opposite side of the river, above high water; and we are persuaded that before the lapse of twenty-five years, there will be little difference in the value of real estate on the east and west sides of the St. Louis harbor. And should the Atlantic and Mississippi railroad terminate at Illinois-town, and a railroad connection be made between that point and the southern States, we venture to predict that it will be, in time, the largest city on the eastern bank of the Mississippi.

GRAPE GROWING IN ILLINOIS.

We are truly gratified to learn that our neighbors in Illinois are beginning to turn their attention to the cultivation of grapes and the production of wine. This branch of industry has been too long neglected in the valley of the Mississippi; but the success that has attended the experiments of our German citizens, wherever they have planted the vine in this region, is calculated to extend its cultivation until it shall be classed amongst our leading staples.

No reasonable man can desire a more profitable pursuit than grape growing, and surely none could be more pleasing and agreeable to one of intelligence and taste.

Our correspondent, Mr. Hilgard, is entitled to the gratitude

of the community in which he resides, for his labors in establishing the fact, that grape growing may be relied on as a certain and profitable employment.

—

BELLEVILLE, Ill., Nov. 10, 1850.

Messrs. Tarver & Risk:

Gentlemen:—You invited me several times to make you some communications about the success or failure of the attempts made by myself and others, of raising wine in the neighborhood of Belleville, Illinois. I heretofore declined doing so for want of sufficient experience in this new and rather delicate matter; but I am able now to give you some facts which may deserve notice.

One of these facts, and indeed an important one, is, that all those species and sorts of grapes which are generally raised in Germany, and especially on the shores of the Rhine, do not grow well here, and absolutely fail from year to year (whatever may be the prevailing character of the weather and temperature), by rotting instead of ripening. This fact is confirmed by more than ten years experience, and has been observed as well by myself as by many other persons, and at various places. It seems evident that our climate and soil do not suit those species of grapes—and there is nothing surprising in this, since in Germany itself, different species of grapes are raised in different localities, and entrely fail in others very little distant.

Seeing this, I began about four years ago, to plant the *Catawba* vine, on a fine elevated ground, or little hill, with a southern slope. The vines, as usual, began to bear in the third year, and in 1849, I made two barrels and a half of very good wine, from between 400—500 vines. The year 1849 being a very bad one for grapes, and indeed the worst in these last ten years, I was surprised at this result, and still more at the quality of the wine, which was judged by all connoisseurs who tried it, to be equal if not superior to the better sorts of Rhenish wines.

Encouraged by this success, I bestowed particular care upon the culture of the vine, and I made this year, (1850), *twenty barrels* of wine from about 2000 vines, more or less, though some of the grapes, say one-sixth, had perished by rotting in the month of August. The grapes ripened perfectly well; they were, indeed, delicious—and the wine they gave is far superior to that of last year. It has a dark yellow colour, like Madeira—and is sweet, strong, and of a fine and excellent flavour, though still in an imperfect state---the fermentation being hardly over. $1 25 is readily offered per gallon, even now; but I do not intend to sell it for less than $1 50.

I must add that the grapes have failed this year in most other places, as I see in the papers, and even in my neighborhood, the same result has taken place in some instances. But my judgment and experience lead me to think that, besides the difference of situation and soil, there has been in those places, some material fault in the management of the river, especially in taking too many leaves and young limbs from the vines, which is usual in some parts of Germany, and may perhaps be well in a land where the sun has by far less power than in our country, but will not do at all under the 38th degree of latitude. Whoever has a sound notion of the life and organism of plants, is well aware how important a part the leaves of a plant or tree have to play in its growth and the ripening of its fruit, being, as it were, its stomach and lungs. And besides, experience shows that in this climate the older leaves of the vine are much liable to be blighted or scorched in the hottest part of summer, so that to take away the young leaves is very often to deprive the vine entirely of all its leaves, and make it impossible for the fruit to ripen well. My nephew, Mr. Theodore Hilgard, Jr., who lives 5 miles east of Belleville, and who manages his vine-yard on the same principles as I do, has obtained a result about equal to mine, in proportion to the number of his vines.

In conclusion, I dare say, that the question whether the heighborhood of Belleville, (and especially West-Belleville, where my vine-yard is situated) can raise a good, nay an excellent wine, is no longer a doubtful one, and is decided in the affirmative. My "twenty barrels" have awakened great zeal and enthusiasm for the culture of the vine amongst all those who know something of it, and in a few years, it may be supposed, hundreds of acres will be devoted to that culture in my neighborhood.

Yours most respectfully,
THEODORE HILGARD, Sen.

SPIRIT CULTURE.

"'Tis a consummation devoutly to be wish'd," to bring out in fair proportions the dormant energies, and develop harmoniously the admirable forms that lie concealed in every germ in nature; whether those germs are of the grain of the earth, or of the thoughts of the mind, or of the feelings of the heart.

Agriculture—that great source whence the physical wealth of a country is derived—Agriculture, is receiving devoted attention throughout our land, as well by theoretical chemists, by scientific analyzers of those elements which aid the seed in

bringing about the best and most abundant harvests, as also by the practical tillers of the earth.

The true wisdom of a country stimulates agriculture. The "dry diggings" from gold mines give the country a pecuniary fever. The fresh fruits of the soil restore it to pecuniary health; and the healthy condition of the wealth of a country must be sustained mainly by the fruits of agriculture.

Mental Culture has attracted the attention of philosophers and schoolmasters in the intellectual fields; and by laboring in these, they have brought about wonderful results in the world. In abstract thought, in metaphysical and mathematical sciences, great discoveries have been made; but mental culture has produced its most astonishing results in and upon practical life, by means of the analysis of elements above the earth — elements moving in the air, and binding them to the service of men—the ignorant as well as the learned—so that they can rule them with a rod of iron.

Steam, that was seen to evaporate as a good-for-nothing element from boiling water, and *Lightning*, that was seen to waste itself away in the clouds—*Steam* and *Lightning* are discovered to be the most valuable servants of men, dispatching their business for them with a power and speed eclipsing calculation.

These results are offsprings of mental culture.

Wit, that distinguishing, that discerning sense of man, by which he is enabled to gain advantages over his fellow men as well as over circumstances—wit, also, becomes more powerful and brilliant by mental culture.

Yet, for all this, we often feel it to be true of a man shining by brilliant mental endowments

> "That all his wit, his most distinguished part,
> But makes us grieve he wan's an honest heart."

We know that, although physical and mental wealth should be earnestly sought for, and highly prized, yet, if the heart is impoverished — if the breast is unrelieved by any oasis of friendly feeling, refreshment cannot be obtained either by mind or by money. It is not in the nature of a desert to give man physical enjoyment, although it might abound with gold and diamonds; and it is not in the nature of a barren heart to give satisfaction to the soul, however the possessor may be endowed with mental and extraneous riches. He whose soul is in his gold, is no better off than Shakspeare's fop, whose soul was in his clothes. Deprive the one of his money, and the other of his finery, and each is a miserable wretch.

Even the man whose soul is in his mind alone — who, by the plans he devises, only coldly calculates how he may obtain advantages for himself, never can experience the satisfaction

which is enjoyed, while it flows from him whose soul is in his heart, desiring and striving to bestow advantages on others.

Here, then, we arrive at the point aimed at:—that latent principle — disinterested and most interesting — that inborn or ingrafted (immaterial which) pure feeling of the heart.

By bringing this principle — this feeling — out of its cell, instead of allowing it to rot within it—by cultivating instead of neglecting it, it would afford resources by far more available than any of a mental or of a pecuniary character.

In this age of progress, practical progress, ways and means, are every day devised; *projects* set in operation, and plans and systems established, to discover more deeply and develop more fully the resources of the physical and mental worlds. But why is that vast world in the heart of man — the moral world — left so desolate? why are the fountains of pure feeling that flow underneath the surface of the moral wilderness, allowed to remain sealed? why are they not opened and permitted to gush forth — to flow in refreshing streams of cordiality, fertilizing the dry and rocky hearts of men?

As the wilderness, by cultivation, may be made to blossom like the rose, and produce abundant harvests to supply physical wants; even so, the wild and hard hearts of men, by cultivation, may be made to yield, not only flowers of affection, but also, harvests of emotions, and fruits of the spirit, to supply the highest wants of humanity.

The common wants of humanity are easily defined. Food, clothing, locomotion, a place to lay one's head; and, to get and provide for the same round of wants for his progeny.

The higher wants are more difficult to determine. They are of a mental character. Knowledge of the world and its different kingdoms—mineral, vegetable and animal — as also, of the kingdoms above the world. Power to analyse the laws by which they are governed — to resolve them into elemental principles, and by new scientific combinations of the elements, to obtain superior control over them, so as to use them for the purpose of gaining more easily and rapidly the common wants; and that the time thus gained may be spent in progressing in the same and kindred intellectual enjoyment and exercise.

The highest wants are still more undefinable. Their origin is enveloped in the mysterious abode of feeling; and that home of feeling is the heart. From thence proceeds an earnest longing for freeness from illusions — the tantalizing vanities which bear the semblance of the realities around us — the superfluous food, dress, houses, &c., which can never fill the aching void in the breast. A panting thirst for refreshment from a fountain of living water, welling up continually from the soul. A raging hunger for that satisfying food which grows on the tree of life in the garden of the moral world.

This earnest longing for freeness from illusions — this panting thirst for perennial refreshment — this raging hunger for constant satisfaction — these are some of the highest wants of humanity.

To supply these wants the clergy preach, and philosophers write, but too often, rigid rules to regulate external conduct. Too often they make clean the outside of the cup and platter, as if internal purity were thus secured, or else not worth securing. But these wants cannot be supplied by external appliances. They can only be supplied by each man for himself, laboring indefatigably at his own heart, in eradicating the weeds and briars of error and vice, and planting and cultivating in their places the seeds of truth and goodness, with a just consciousness of the invisible influences that surround and descend upon him from heaven, ever ready to act upon, and develop the seed sown. How, it may be asked, can an unlearned man be expected to distinguish truth from error — vice from goodness — when even the learned disagree, and ecclesiastics quarrel about their distinctions? but does not the unlearned as well as the learned, know when he is selfish? and because he is ignorant of knowledge, is he therefore, less capable of disinterested feeling? These questions contain axiomatic truths, which the common sense of mankind cannot misunderstand.

Thought and feeling are born in man. Thought tends to selfishness; feeling to disinterestedness. Thought bends external nature to our own service; feeling flows from our internal nature in streams of beneficence, for the benefit of others. Man cultivates thought, and stifles feeling. He studies to be selfish, and brings himself to believe that disinterestedness is folly. And therefore it is, that when the hallowed days of childhood are past — those days when feeling equalled thought — when others were loved as much as self — therefore it is, that innocence is then lost. The harmonious relation between thought and feeling, is disturbed. Selfishness gets the better of liberality; and so long as it retains its advantage, it gnaws on the vitals of the wretch who permits it, like the vulture on those of the rock-bound Prometheus. The miser in wealth, and the bigot in opinion, are both illustrations of the principle of selfishness, and of the fruits of wretchedness which it produces. The miser may be as rich as Midas, whose lot it was, as his prayers to his gods had been, to turn every thing he touched into gold, and yet, he may realise what others believe to be a delusion — that he must die with the raving agonies of want. The miser finds that he prizes money more than food; that his money-making principle is absorbing his principle of vitality. And thus, he really feels the action of the law of acquisition, preying upon the laws of his life; preventing him

from spending money enough to satisfy his hunger; and tormenting him, not only with apprehensions of bodily misery, but with agonies more real than the mere death of the body which he starves; for he feels awakened within him a consciousness of the approaching death of the soul — that second death—the horrors of which are inconceivably more agonizing than any physical torment.

The bigot in mind leads a life analagous to that of the miser in money. Selfishness is the principle — the rule of conduct — by which both are governed, each in his own sphere. By bigot, is meant, not merely a man who is selfish in theology, like a Jewish scribe, Pharisee, or hypocrite, who, filling his mind with all knowledge on the subject, is ready to die for external formulas, or the letter which killeth, and ready to put to death one who kindly differs from him, rather than awaken within himself the spirit which giveth life; but by bigot is meant the self-opinionated person in philosophy, physical, mental and moral; as also in politics: one who binds himself in old forms, and hoarding up within his head all the learning of the world, thinks it has arrived at the culminating point of humanity; that any further progress would necessarily be downward, and that any reformation would eventuate in utter dissolution. To such men be it said, that as there are earthquakes and volcanoes in the physical world, so must there be mind-quakes and explosions in the mental world. Old hypotheses, theories, ideas and governments, cannot withstand the unseen power that rules supremely over and around them. If men will remain selfish, contracted, and opposed to all liberal expansions of the laws of humanity, they and theirs must become exploded; for the spirit of the age is onward and upward, and will have its way.

Hints merely, or general suggestions and sketches only, may here be expected to be given, of the ways and means of discovering and developing within one's self, and, in the age in which one lives, the spirit nature, which exercises that superhuman influence on matter and on mind.

As Locke said in his once applauded but now exploded essays on the Human Understanding that, for evidence to sustain the truth of the principles he asserted, he relied on the approving consciousness of every reader; so be it said in this essay, that for evidence to sustain the truth of the principles here asserted, reliance is placed on the approving consciousness of every reader. The intuition of humanity may be the test.

The germ of feeling, by the common acknowledgment of mankind, is placed in the heart; and to develop this feeling man must first become like a little child. He must renounce the inordinate passion for money — the root of all evil. He

must renounce the inordinate ambition for a ruling intellect.—

> "By that sin fell the Angels, how can Man then,
> The image of his Maker, hope to win by it?"

Sense, proud, arrogant, affected common sense, that turns up its nose like a *parvenu*, must be humiliated to the true, the genuine common sense—must be subdued to sensibility, and affection must be allowed to have fair play, to grow and spread its tendrils luxuriantly, and not be choked to death by the tares of pride.

An affectionate disposition is the first element requisite to the cultivation of the spirit nature. This affectionate disposition must be entertained in its freest, as well as minutest, and most comprehensive meaning. Its starting point is from an emotion of kindness, of which some men are occasionally, and every child is certainly conscious. This emotion of kindness, which selfishness endeavors continually to seal up in the heart, watching every effort it makes to free itself from its prison, with the eye of a demon—this genial emotion of kindness, must be released from the tyranny of selfishness, and allowed to move with freeness, and not only to touch tenderly and earnestly the hearts of others, but also, all animate and inanimate objects, in the vast extent of nature; enveloping them with a hallowed charm, and then returning to the source whence it emanated; it should be allowed to move as freely through every nerve and fibre of the corporeal and mental frame —through the inner nature of its entertainer, as it did through outer nature, so that the tender and earnest action of this emotion within his triune person, physical, mental and moral, may produce a transport, analagous to, but free from all the surfeiting alloy of the most voluptuous rapture.

Such freeness must be given to that tone of feeling, which on account of its simplicity and the slavery in which it is held, is oftentimes scorningly called an "affectionate disposition." This affectionate disposition must first be cultivated, and be made to act as freely and as wastefully, as the "wind that bloweth where it listeth; for so is every one that is born of the spirit."

A respectful reverence is another essential element of the spirit nature. The term "respectful reverence" has been generally used to express the particular regard due to the clergy,—and this understanding of the term is highly proper;—but the feeling, the emotion of respectful reverence, should not be confined in such a narrow sphere. The Supreme Being exists in other spheres as well as in that, and this respectful reverence should be entertained towards every person, and every thing he has made.

First, one should respect — revere himself — not only that he may be respected and revered by others, but because he

himself is an offspring of the Deity—as some also of the Greek poets have said. Every impulse within him, man should respect with an affectionate reverence, and gently sway it in harmony with the will of his Father.

Second, a decent respect for the opinions of mankind, as intimated in the declaration of independence of the U. States of America, should always characterize one's conduct towards others. This respect towards others is essential to our independence of them, but in the entertainment of it, self-respect is always to be maintained in harmonious union.

Third, a respectful reverence should be felt towards all animate and inanimate nature—the sun, the moon, the stars, the winds, the waves, the woods, and the "cattle on a thousand hills," for it is by means of this feeling of reverence for inferior nature, that one

> "Finds tongues in trees, books in the running brooks,
> Sermons in stones, and good in every thing."

With such principles one may walk abroad upon the surface of this earth, in harmony with the Creator and the created, feeling in his spirit the strength of the lion—the happiness of the lark—the freedom of the wind, and the warmth and brightness of the sun in the heavens—and to him "the world thenceforth becomes a temple, and life itself one continued act of adoration."

Many other elements might be mentioned producing their influence on the development of the spirit nature. Still the question will be asked by thousands, what can we do to obtain that affectionate disposition, this respectful reverence, and those other elements alluded to? The answer is, watch against selfishness, and pray for freeness of spirit. For selfishness is the personification of Evil—the Tempter—the Devil himself. But He to whom the prayer for freeness should be made, has power to resist the Tempter, to overcome him, and set the prisoner free from his tyranny, and when he sets him free, then indeed is he free in spirit.

The elemental principles of humanity are still the same as they were at the commencement of that era of the world, from which we now date our years. In the years of our Lord's personal existence in the Holy Land, the ecclesiastical ideas of those who were profoundly learned in the law of Divinity, were wonderfully compressed. They were all locked up in musty documents. The scribes and doctors of divinity were then more narrow-minded even than the writers and the doctors now. Their ideas were all outsided—white sepulchered. Their ideas had no spirit in them; they were the concentration of the *physique*. Forms and ceremonies, and rules and regulations binding and shaping external conduct—like the

practice of Procrustes who made all his subjects fit a certain bed, cutting off the bodies of those who were too long, and stretching out the limbs of those who were too short—such were the orders of the day. Even their Prince of Glory, for whom they were then looking every day with anxious expectations, they had shaped him too. They had determined he must be fashioned after the style of Cyrus and Alexander, and far more glorious outwardly than Cæsar. But when He came, and the high priests and their learned counsellors saw Him, and saw the superhuman and unanswerable evidence of His just title to the Prince of Glory, in the the selfish pride of their narrow minds, and with hearts like flints, they said:—He hath a devil, and the only reason he can cast one out from others, is, because he is an emanation from Beelzebub, the very prince of that tribe.

One only, of all the masters of Israel, seemed to be inclined to be honest-hearted, and even he, was almost ashamed of being so. He is mentioned as the same who came by *night* to his true master; and although from the overwhelming evidence adduced, he was compelled to acknowledge him to be so, yet, he manifested an utter ignorance in regard to the spirit-nature of humanity; for, when he was told he must be born again, and of the spirit—washed as with water, from his dust-nature—still, the one idea, of the *physique* order, encased the heart of the humble and liberal Nicodemus; and this idea struck itself out, as he enquired, with his carnal notions:—"How can a man be born, when he is old?" But as he was answered in a way most likely to reach his heart, by remarks delineating the spirit-nature, by means of sketches of ideas, tracing analogies between it and the physical order of flesh and of wind; and as he again enquired:—"How can these things be?" and was finally answered that a new light had come into the world—a light far more beautiful and glorious, than the mere physical light of the sun of day, or even the brilliant mental light of the polished and witty Greeks—that it was a superhuman and inextinguishable moral light from the Kingdom of Heaven, which came without observation, and shone from the heart of its recipient; it may be that Nicodemus was an exception, among the ecclesiastical characters of his time, that he opened his heart and received within it, this light of the Spirit; although, little is heard of his disposition to come out openly and let it shine; but the indications are, that even he, rather preferred to "hide it under a bushel."

The other old masters of Israel, with their proud and selfish intellects, kept their hearts enclosed in their old forms, and shut against the Spirit; so that, as the New Form, which was presented before them, and which was filled with the Spirit, was not fashioned according to their form, they said: "Away

with him"; and worse than Procrustes, they stretched him, and nailed Him; hung Him, and pierced Him with thorns and with spears, as if actuated with concentrated inhumanity, on a frame which was called the accursed cross. But even death could not gain a victory over the Spirit: for which survived, the old form, or the new? When the words, "It is finished," were uttered on that cross, and the earth quaked, as it echoed the voice of the Deity, then, also, was the old form exploded; and, as a symbol of that fact, the vail of the Temple, itself, that hallowed sanctuary of the old form, was rent in twain, from the top to the bottom.

How, now, stand the scales of destiny in relation to the Jews, with their stubborn physical ideas, haughty, stiff-necked intellect; and the Christians, with their humble, graceful, cordial, feelings? The Jews are cast down and scattered to the four winds of Heaven; despised of men. The Christians are exalted to the high places; and have drawn, and are now drawing, as by a magic charm, the various nations of the earth together, in harmony with one another. The heart of one nation is felt beating responsive to the heart of another, as the merchant responds to the call of a foreign land, sending the produce of his own, to supply the wants of others; and, as intelligence is transmitted, as called for, by electric wires, even so, the sympathetic cords of vitality of spirit, are conveying the feelings of unity and kindness over the whole earth.

He, then, from whose personal appearance on the earth, we date our years — *He* is the source of that flood of spirit and of glory, in which man is, and is still becoming more fully filled, and perfectly enveloped. This Christian spirit, the spirit which tends to the civilization — the amelioration — the progress of mankind — peace on earth and good will to men — this is the spirit to be cultivated. And, though some strong-headed men will not acknowledge it, but scoff at, and persecute it, and would annihilate it, if it were in their power, yet, the fact is, this is the true, the genuine spirit of the age. The advice given by Gamaliel to those stubborn men who struggled to crush it in its infancy, to refrain from their intentions, "lest haply, they be found even to fight against God"—this advice is still the true Christian practical counsel for every man to follow, in every thought and action. And now, when this spirit has grown up, these 1850 years, from its infancy to its present giant stature and strength, let him who seeks to crush it take care, lest it fall upon him and "grind him to powder."

Let the Puseyite, with his exclusive notions of baptismal regeneration, with his denial to men, of their right to exercise their own private judgments — with his efforts to imprison this spirit of the age in his shallow forms, and with the brittle figments of his brain, beware, lest it break them to pie-

ces. Let the Carlyleite, with his carping, fault-finding, annihilating intellect, take care, lest in pulling down the columns of the temple of the spirit of the age, he, himself, Sampson-like, be buried in the ruin he works. Let the abolitionists and nullifiers take care, lest they destroy themselves and their country, with their selfish, their headstrong, political policies. Let them listen to the tones of kind feeling, uttered from the lips of Clay and Webster, those master-spirits of this day; let them listen to their magic tones, that charm us into a still stronger love of Union, and which we daily hear echoing, and re-echoing, throughout the length and breadth of our land, inspiring, not only an affectionate disposition towards one another, even in the most distant portions, but also, inspiring a respectful reverence for the laws of the land, telling the servant to be obedient to his master — the citizen to respect the powers that be, and to every one, to "render unto Cæsar the things that are Cæsar's.

Let the lavish free-thinker, and the narrow-minded churchman, change their selfish ways; and, instead of laboring to maintain themselves by *finding fault* with others, let them stand, if they please, on their own ground, and maintain themselves, if they can, by virtue of their inherent integrity; but, in the name of the christian, the liberal spirit of the age, let their devotion to others, be that of *finding virtue* in them, and of developing every germ of virtue they can find, until, like the particle of leaven, it acts and works unseen, except in its effects, in, and through the whole mass, until, by degrees, every portion feels the elevating influence.

With this spirit, and a devotion to this Spirit Culture, the great mass — the body of the people of our country — may become grounded in the truth; and, not only educated in the different branches of wisdom, but also, so cultivated, as to produce, continually, superabundant fruits of goodness; and, thus while the farmer is induced to develop the resources from the soil — the manufacturer to work the raw material into fabrics—and the merchant to exchange these products and fabrics for the bodily comforts of man—at the same time, the blessings of civil and religious liberty may be developed from the head and the heart; wrought out into newly discovered improvements, and sent with missions of love, from the superabundance of our goodly heritage, to descend, like the dews of heaven, on foreign and darkened lands, that all the inhabitants of the earth, may be made to grow in, and enjoy the celestial comforts of the same civilizing and enlightening spirit.

LIFE OF JOHN RANDOLPH, IN TWO VOLUMNS, BY HUGH A. GARLAND, Esq.

We have not had time to give this work a regular perusal—it came to hand after the matter for the present number of our Journal was arranged for the press, and consequently the space we have left admits of but a very brief notice.

The plan of the work is arranged with judgment, and calculated to place the private and public life of the eccentric Randolph in their true light. For this the author deserves the thanks of the American people. Patriotic and wise statesmen are the gems of a nation—and one who is instrumental in perpetuating their brightness, is entitled to the gratitude of his countrymen.

The work is published in a handsome style, and, as a literary performance, is highly creditable to its author.

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John C. Meyer,

Dealer in Hides, Leather, Oil and Findings,

No. 88 North Main Street, St. Louis.

H. W. LEFFINGWELL, Notary Public. R. S. ELLIOTT, Com'r of Deeds.

Leffingwell & Elliott,

REAL ESTATE Dealers, Auctioneers and Conveyancers, No. 123 Chesnut street, St. Louis, Mo. Real Estate sold on commission, at private sale, or auction. Also, Deeds of all kinds written, and acknowledgments taken. Maps of the city and additions, to be seen at the office, and information given free of charge. Surveying done promptly and correctly.

Charless & Blow,

NO. 70 and 72, Exchange Building, St. Louis, Mo., Importers and dealers in drugs, medicines, oils, paints, dye stuffs, perfumeries, window glass, glassware, &c.

O. W. Jerome,

WHOLESALE and retail dealer and manufacturer of Cabinet Furniture, chairs, bedsteads, &c., Nos. 44, 46 and 48, Olive street, opposite the Monroe House, St. Louis, Mo.

Sligo Book Store and Paper Warehouse.

AMOS H. SHULTZ, No. 136, north Main street, St. Louis, opposite the Bank. Wholesale dealer in books, paper and stationery.

THE undersigned takes the liberty of informing you that he has removed his place of business to Olive street, a few doors above Main, south side, in the Exchange Building, and three doors above Messrs. E. W. Clarke & Co.'s Banking House, where he is now opening, and will continue to receive during the Spring months, a large and full assortment of the most

Fashionable Styles of Goods,

In his line, for gentlemen's wear; and where he will be pleased to see his old friends and customers, and their friends with them; and assures those who may favor him with their patronage, that they shall receive his personal attention, and his best efforts to please. Very respectfully, your ob't servant,

J. G. SHELTON.

Giles F. Filley,

MANUFACTURER of the celebrated prize premium cooking stoves; also, Irving's air tight cooking stoves, fancy parlor stoves, fancy box and coal stoves; dealer in tin plate, copper, sheet iron, block tin, rivets, tinner's tools, machines, &c. Warehouse No. 163 north Main street, St. Louis, Mo. Foundry on Lewis street, near the water works.

TOBACCO.

T. MULLEN, Tobacco Commission Merchant, 21 Washington Avenue, St. Louis, Mo. for the sale of Cuba and Havanna Tobacco; also, for Virginia manufactured tobacco, for which he has the agency.

Great Western Clothing Emporium!

WHOLESALE AND RETAIL,

No. 124 *and* 126 *Second street, corner of Vine.*

W. L. & J. BIGELOW & Co., St. Louis, Mo.

BAKER, NELSON & Co., 51 Cedar street, New York.

Fallon & Wright,

CARRIAGE manufacturers and dealers, No. 90, Fifth street, between St. Charles and Locust, are constantly manufacturing, and have on hand, all styles of carriages, which they will sell on the most reasonable terms. They flatter themselves from the experience they have had in the business, to be able to furnish as good an article as can be bought in any market. Citizens and strangers are requested to call and examine for themselves. All carriages made by us are warranted to be as represented, or the money refunded. WESLEY FALLON,
JAS. A. WRIGHT.

John Mullery,

PREMIUM Horse Shoer, in the alley, opposite the Post Office, will as usual pay particular attention to the various diseases affecting the feet of horses, and will guarantee to give general satisfaction in either of the above departments.

Fruit Trees and Shrubbery,

For sale by JOHN SIGERSON & BROTHERS, at their fruit farm and nursery. This establishment is located seven miles South of St. Louis, Mo. There are Omnibus Coaches running daily from the City within one half mile of the establishment. The Nursery and Gardens are open at all times (Sundays excepted) for the reception of visitors. Horticulturists and Amateurs are respectfully invited to visit the establishment and examine for themselves. In directing the attention of the public to their nursery, they would remark that one of the firm, (Mr. James Sigerson,) has been engaged in the above business for the last twenty five years; during that time he has tested many of the varieties now growing. This, with the assurance on their part of an intention to increase the number of their trees, as well as to add to their assortment from year to year, furnishes a strong guarantee to persons wishing to make choice selections of fruit, that they can always be supplied. Their prices for trees will be as reasonable as at any similar establishment East or West, and when desired, trees will be delivered free of charge in the city or on steamboats; packed in good order for their destination.

☞All letters addressed to John Sigerson, St. Louis, or to James Sigerson, Carondolet, will meet with prompt attention.

JOHN SIGERSON & BROS.

J. BUNDING. B. VOIGT.

Bunding & Voigt.

WHOLESALE dealers in drugs, chemicals, paints, oils, dye-stuffs, window glass, glassware, &c., &c. No. 100 Main street St. Louis, Mo.

P. Hayden,

(SUCCESSOR TO P. WILSON & CO.)

IMPORTER and manufacturer of saddlery, hardware, carrriage trimmings, saddle trees, hog skins, skirting, harness and bridle leather, wood and iron hames, &c. 47 Second street, (east side, between Pine and Olive streets,) St. Louis, Mo. Manufacturing the greater portion of the articles in my line, and importing the remainder, my advantages are superior to *any house in the trade.*

GENERAL AGENCY AT DUBUQUE, IOWA.

FOR Public Lands—Real Estate—Military Land Warrants—Payment of Taxes—Investigation of Titles—Amicable Collection of Debts, and all other business within the legitimate sphere of an Agents duties, by

CHARLES CORKERY,

Notary Public and Commissioner of Deeds and Depositions for all the North-western States, Missouri, included.

October, 1850.

J. HENWOOD,

Hat Manufacturer, 72 Chesnut Street, St. Louis, Mo.

Missouri State Mutual Insurance Company.

DIRECTORS:—John O'Fallon, C. M. Valleau, Reuben Knox, Daniel D. Page, Oliver Bennett, John Sigerson, John S. McCune, Joseph A. Eddy, True W. Hoit.

This company is established upon the mutual principles of insurance, and is emphatically a home institution. The fire risks of this company are extended into all parts of this State. Its earnings are never employed or invested in stocks or real estate, but kept for the prompt liquidation of losses, and under the immediate control of the Directors. Every person insuring with this company becomes interested in its success, and its profits instead of being divided among a few stockholders, belong to those who insure in this company.

The Directors aware of the importance of a well secured fund, reliable in case of loss, and a mpleun der all ordinary calamity, assure the public that they have already apledged fund ample and reliable for any contingency, with a monthly increase of premiums f over ten thousand dollars. For the length of time this company ha s been in operation (six months) its business has been extended into all parts of the State and the city, and has received from the public a liberal patronage, which has placed it upon a permanent basis.

By an act incorporating this company, the parties insuring property therein, are entitled to the entire profits of the institution, the premium notes are also pledged by the charter for the payment of losses.

The portfolio of the company is at all times open to the inspection of its members and those wishing to make insurance with it. Policies are issued from thirty days to six years, thereby effecting a permanent insurance, with a return premium of from fifteen to fifty per cent, according to the term of insurance.

Agents for this company, may be found in all the principal towns in the State to whom applications may be made.

Office of the company over E. W. Clark & Bro., corner Main and Olive streets, Exchange building, where insurance will be effected at the tariff rates of premium.

C. M. VALLEAU, President,

H. D. BACON, Treasurer.

S. F. LEDYARD, Secretary.

Home Mutual Fire and Marine Insurance Company of St. Louis.

NOTWITHSTANDING the heavy loss sustained by this company in May last the stock notes now on hand amount to $350,000. The stock notes of the company are secured by lien upon real estate and approved endorsers. Office, No. 120 North Third street.

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In the manufacture of Iron Railing, either wrought or cast, over five hundred designs in their possession may be examined, embracing all the most beautiful patterns of the eastern countries, public and private buildings.

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IMPORTER and wholesale and retail dealer in watches, jewelry, cutlery, guns, pistols and fancy goods, No. 83, north Fourth street, first block north of Planters' House, east side, St. Louis, Mo.

Crow, McCreery & Co.,

WHOLESALE dealers in Dry Goods, No. 71 Main street, St. Louis, Mo. Wayman Crow, Phoceon R. McCreery, Wm. H. Barksdale, Wm. A. Hargudine, Chas. D. Appleton.

Woods, Christy & Co.,

WHOLESALE dealers in Dry Goods, No. 75 Main street, St. Louis, Mo James Woods, William T. Christy, James C. Christy, Robert K. Woods.

Protect Your Property.

HAVING made an important improvement in the application of Blake's Slate Paint, for which I am obtaining Letters Patent, I am prepared to do any amount of work, in the roofing line, or to furnish any person with the slate, in sheets or rolls, containing from 2 to 600 feet in a roll; and any person can lay it over his roof himself. Farmers and merchants can have their warehouses, barns and dwellings rendered perfectly fire proof by this means. I charge $5 50 per square of 100 feet. In building, nearly one fourth of the entire cost may be saved by having the roofs flat. The gable walls and steep roof being dispensed with if thought best; thus making the cost of a roof of my slate less than even shingles; and one half less than Welsh slate, or iron. I can do work for persons out of the city if desirable, provided the distance is not too great from the rivers. Persons wishing to embark in the roofing business, can buy the right to any territory they wish, at low rates; and are sure to make money if they are industrious. I am prepared to fill all orders that may present for doors, sash, blinds, flooring, &c., at lower rates than any one in the west. No order will be filled without the cash. Any particular form of sash or doors made to order. Manufacturers, as usual, supplied with any kind of machinery. Patents secured. Engraving done.

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All orders from the country will meet with prompt attention.

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MANUFACTURERS of Copper, Tin and Sheet Iron Ware, Lead Pipe, Sheet Lead, Bells weighing from 20 to 400 pounds, Brass Castings, Beer and Soda pumps, and general Stove Dealers.

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